Exhibit 2: CEQA Documentation

Notice of Determination

Appendix D

To: ☑ Office of Planning and Research
For U.S. Mail: P.O. Box 3044 Sacramento, CA 95812-3044
Street Address: 1400 Tenth St. Sacramento, CA 95814

☐ County Clerk
County of: _____
Address: _____

From: Public Agency: California Dept of Fish and Game
Address: 830 S Street
Sacramento, CA 95814
Contact: Holly Sheradin
Phone: (916) 327-8658

Lead Agency (if different from above):
_____
Address: _____
Contact: _____
Phone: _____

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2005042095

Project Title:
California Department of Fish and Game - Year 2005 - Fisheries Restoration Grant Program Projects

Project Location (include county):
Del Norte, Humboldt, Los Angeles, Marin, Mendocino, Napa, San Luis Obispo, San Mateo, Santa Barbara, Sant Cruz, Siskiyou, Sonoma, Trinity and Ventura Counties

Project Description:

This project will use grant funds approved by the California Legislature to initiate activities designed to restore coastal streams and watersheds that historically produced large populations of salmon and steelhead.

This is to advise that the California Dept of Fish and Game ☒ Lead Agency or ☐ Responsible Agency has approved the above described project on May 19, 2005 (Date) and has made the following determinations regarding the above described project:

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [☒ was ☐ was not] adopted for this project.
5. A statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.
6. Findings [☐ were ☒ were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the Negative Declaration, is available to the General Public at: 830 S Street, Sacramento, CA 95814

Signature (Public Agency) _____ Title Branch Chief
Date May 19, 2005

Date received for filing at OPR:

RECEIVED
MAY 19 2005
STATE CLEARING HOUSE

Revised 2004

Exhibit 2: CEQA Documentation

STATE OF CALIFORNIA

THE RESOURCES AGENCY

DEPARTMENT OF FISH AND GAME

PROPOSED MITIGATED NEGATIVE DECLARATION

FOR

THE 2005 FISHERIES RESTORATION GRANT PROGRAM IN DEL NORTE, HUMBOLDT, LOS ANGELES, MARIN, MENDOCINO, NAPA, SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SANTA CRUZ, SISKIYOU, SONOMA, TRINITY AND VENTURA COUNTIES AND REQUIRED AGREEMENT REGARDING PROPOSED STREAM OR LAKE ALTERATION

Prepared By:

Bob Coey
Senior Biologist Supervisor
Central Coast Region

and

Gary Flosi
Senior Biologist Supervisor
Northern California-North Coast Region

This Report Has Been Prepared Pursuant to the
California Environmental Quality Act of 1970
State of California
The Resources Agency
Department of Fish and Game

INITIAL STUDY
AND
MITIGATED NEGATIVE DECLARATION
FOR
THE 2005 FISHERIES RESTORATION GRANT PROGRAM
IN
DEL NORTE, HUMBOLDT, LOS ANGELES, MARIN, MENDOCINO, NAPA, SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SANTA CRUZ, SISKIYOU, SONOMA, TRINITY AND VENTURA COUNTIES
AND
REQUIRED AGREEMENT REGARDING PROPOSED STREAM OR LAKE ALTERATION

The Project: This project will use grant funds approved by the California Legislature to initiate activities that are designed to restore salmon and steelhead habitat in coastal streams and watersheds. Years of poor land management and natural events have limited the ability of fish to survive and successfully reproduce in coastal streams that historically produced large populations of salmon and steelhead. This proposed project is designed to increase populations of wild anadromous fish in coastal streams by restoring their habitat.

The project objective is to improve spawning success for adult salmon and steelhead as well as increase survival for eggs, embryos, rearing juveniles, and downstream migrants. Bank stabilization treatments will improve spawning conditions and embryo survival by reducing sediment yield to streams. Upslope road decommissioning or repair will also help address these widespread problems. The replacement of barrier stream crossings with bridges or natural stream bottom culverts will allow adult and juvenile salmonids access to additional spawning and rearing habitat. The installation of the instream structures will recruit and sort spawning gravel for adult salmon and steelhead, and create summer rearing pool and over-wintering habitat for juveniles.

The Finding: Although the project may have the potential to cause minor short-term impacts on soil, vegetation, wildlife, water quality, and aquatic life, the measures that will be incorporated into the project will lessen such impacts to an insignificant level (see initial study and environmental checklist).

Basis for the Finding: Based on the initial study, it was determined that there would not be significant adverse environmental effects resulting from implementing the proposed project. In addition, the project is expected to achieve a net benefit to the environment by enhancing and maintaining quality salmonid spawning and rearing habitat in the twelve-county project area.

The Department of Fish and Game finds that implementing the proposed project will have no significant environmental impact.

Therefore, this mitigated negative declaration is filed pursuant to the California Environmental Quality Act (CEQA), Public Resources Code Section 21080 (c2). This proposed mitigated negative declaration consists of all of the following:

- Detailed Project Description and Background Information
- Initial Study Environmental Checklist Form
- Explanation of Response to Initial Study Environmental Checklist Form
- Appendix A. Project Action Items
- Appendix B. Mitigation Measures, Monitoring and Reporting Program For the 2005 Fisheries Restoration Grant Program
- Appendix C. Guidelines for Conducting Project Specific Endangered, Rare and Threatened Species Surveys

DETAILED PROJECT DESCRIPTION AND BACKGROUND INFORMATION

FOR

THE 2005 FISHERIES RESTORATION GRANT PROGRAM
IN
DEL NORTE, HUMBOLDT, LOS ANGELES, MARIN, MENDOCINO, NAPA, SAN LUIS OBISPO, SAN MATEO, SANTA BARBARA, SANTA CRUZ, SISKIYOU, SONOMA, TRINITY AND VENTURA COUNTIES
AND
REQUIRED AGREEMENT REGARDING PROPOSED STREAM OR LAKE ALTERATION

INTRODUCTION

The proposed 2005 Fisheries Restoration Grant Program, formally known as "The 2005 Fisheries Restoration Grant Program in Del Norte, Humboldt, Los Angeles, Marin, Mendocino, Napa, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, Siskiyou, Sonoma, Trinity and Ventura counties" (Restoration Program), is a "project" subject to review under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The Restoration Program involves funding, in whole or in part, of 111 habitat restoration action items in the fourteen identified counties. These action items, which are set forth in Appendix A, are the principal focus of the environmental analysis set forth below.

The Restoration Program also involves other restoration-related activities, all of which are exempt from CEQA. These other activities fall into two distinct categories. The first category includes 74 action items for which there is no prospect of direct or indirect physical changes to the existing environment. These activities, in particular, involve the award of grants for watershed evaluation, assessment, planning, technical training, and public education. (See generally *Id.*, § 21102; Cal. Code Regs., title 14, § 15262.) Each of these action items are identified in Appendix A.

The second category of Restoration Program action items not discussed in detail in the environmental analysis that follows involve small-scale salmonid habitat improvement projects implemented solely with hand labor. These 10 minor action items, all of which identified in Appendix A, have no potential to adversely affect existing environmental conditions. The actions, in turn, fall within a class of activities that are exempt from CEQA pursuant to a finding by the Secretary of the Resources Agency that the activities pose no risk of potentially significant environmental impacts. (Pub. Resources Code, § 21084; Cal. Code Regs., title 14, §§ 15300, 15306, 15307.) These individual action items are also identified in Appendix A.

This initial study and the proposed mitigated negative declaration (MND) analyze the environmental impacts that might result from implementation of the proposed Restoration Program. The initial study and MND also serve to address potential environmental impacts that may occur to the extent an individual restoration activity requires a Streambed Alteration Agreement (SAA) from the Department (See Fish and Game Code, § 1600 et seq.). Finally, construction of all or a portion of some of the individual restoration activities may actually occur in subsequent years, depending on the terms and contract for each respective individual grant provided by the Department.

PROJECT GOAL AND OBJECTIVES

The primary goal of this restoration program is to maintain and restore natural watershed processes that create habitat characteristics favorable to salmonids.

The objectives of the restoration program action items are to enhance the capability of streams to produce wild anadromous salmonids by maintaining, restoring, and improving stream habitat essential to salmonid production.

Finally, it is the Department's objective to implement this project while not causing a significant adverse effect on the environment, or reducing the number or restricting the range of an endangered, rare or threatened species.

BACKGROUND

The Department may grant funds for habitat restoration to public and private entities, nonprofit organizations, and Indian tribes. Sections 1501 and 1501.5 of the Fish and Game Code pertain to activities funded by the Department.

This restoration program was established in 1981 and is administered by the Department. This program was initiated because of the precipitous drop in the population of fish in coastal streams, mainly salmon and steelhead. This program was developed as a mechanism to administer grant funds designated for the restoration of fish populations. Through the past several decades to the present time, funds allocated by the California Legislature have been used in this grant program in an effort to rebuild fish populations (see Fish and Game Code Section 6900 et seq.). Initially, grants were awarded in three categories: stream restoration, fish rearing, and education. In recent years, a more holistic watershed restoration approach has been emphasized that allows restoration throughout the watershed.

There are many factors responsible for the decline of California coastal salmon and steelhead stocks. One important factor is the degradation of stream habitats. Activities in watersheds including logging, mining, road building, livestock grazing, water diversions, and dam construction have seriously impacted the ability of fish to survive

and reproduce. For example, excessive fine-sediment has reduced egg and fry survival, removal of riparian vegetation has contributed to increased water temperatures, habitat has been impaired by water diversions, and culverts and dams have blocked fish passage. Habitat destruction has been instrumental in drastically reducing native anadromous fish populations. Natural events such as wildfire, drought, and floods have also exacerbated these problems. This has caused extreme financial hardship to a once thriving commercial fishery and drastically reduced, or in some cases eliminated, a very popular sport fishery. Several stocks have been reduced to the point where listing under the Federal and State Endangered Species Acts has become necessary.

The Restoration Program was instituted as the critical need to restore salmon, and steelhead stream habitat was recognized. Guided by the *California Salmonid Stream Habitat Restoration Manual* (Flosi et al., 1998), hundreds of habitat restoration actions in this Restoration Program have been completed by government agencies and nonprofit groups. Activities have included revegetation with livestock exclusion fencing, riparian planting, barrier removal, bank stabilization and other bank protection structures, and decommissioning of roads and improving drainage systems on existing roads. Instream structures such as boulder clusters, wing deflectors, and log cover have also been used. Road crossings that have impeded fish migration have been replaced with bridges or culverts with natural stream bottoms allowing fish access to additional stream reaches. Finally, other watershed improvement activities include installation of fish screens to prevent entrainment of juvenile salmon and steelhead. These actions create spawning and nursery habitat, provide escape cover and prevent fine sediments from entering streams. Project monitoring has shown significant habitat improvements in streams where this work has taken place. A gradual rebuilding of salmon and steelhead populations is expected as this program continues.

PROJECT LOCATION

Activities performed in the Restoration Program typically occur in watersheds that have been subjected to significant levels of logging, road building, mining, grazing, and other activities that have reduced the quality and quantity of stream habitat available for native anadromous fish.

Coastal watersheds previously dominated by mature redwood and Douglas fir forest, contain extensive road and skid trail systems from tractor logging. These previous mature, forested areas can now be found in various seral stages of vegetative recovery and are predominate in the coastal Restoration Program region. Action items are implemented within the stream course to improve fish habitat. Upslope restoration actions improve fish habitat by reducing the input of fine sediment to the stream environment.

Inland locations are usually in watersheds dominated by pine and fir forests, often with steep unstable terrain; some inland locations are in valley areas in agricultural use. Most restoration activities are intended to reduce sediment delivery to streams, and provide spawning and rearing habitat in the streams. Streams flowing through valley areas will be treated to stabilize stream banks and increase riparian vegetation.

SCHEDULE

The activities carried out in the Restoration Program typically occur during the annual period of dry weather. Stream work is normally confined to the period of June 15 to November 1 (or the first significant fall rainfall). This is to take advantage of low stream flows and is outside the spawning and egg/alevin incubation period of salmon and steelhead.

Generally, upslope work occurs during the same approximate period. Road decommissioning and other sediment reduction activities are dependent on soil moisture content. Equipment access on dirt roads, and the ability of equipment to move soil, is inhibited by wet conditions. The scheduling of upslope work may also be impacted by the avoidance of nesting or breeding seasons of birds and terrestrial animals.

Some activities may continue after November 1, but only where no impact, or less than significant impacts, will result. This will primarily involve hand-planting of tree seedlings, which typically does not begin until December 1, and may continue until the end of March. Planting during the wet season is necessary to ensure the best survival of seedlings.

PROJECT DESCRIPTION

The Department releases an annual Proposal Solicitation Notice (Solicitation) for proposals for fishery restoration, conservation education, and watershed assessment and planning work throughout California. Following initial review by the DFG Technical Review Team, proposals are sent to appropriate fishery staff for field review, comment, and scoring, using standardized evaluation criteria. The evaluation process requires consideration of benefits to the fishery resources, need for work in particular drainages or sites, benefit for targeted species, project costs, and positive or negative impacts to the environment. The resulting scored proposals and comments are forwarded to the California Coastal Salmonid Restoration Grants Peer Review Committee (PRC). The PRC evaluates and scores each proposal and makes recommendations for funding priorities. The Director of Fish and Game reviews the recommendations and makes the final funding decision. Grants and contracts are written for the approved action items and environmental documents are completed.

The Fisheries Restoration Grant Program operates Regional General Permit Number 12 (Corps File Number: 27922N) issued by San Francisco District of the U. S. Army Corps of Engineers (USACE). This permits allows the Department, contractors, and other individuals and groups to conduct fishery habitat restoration activities using methods described in the *California Salmonid Stream Habitat Restoration Manual* (Flosi et al 1998 and 2003) that have been evaluated by Department biologists. NOAA Fisheries (formerly NMFS) and the US Fish and Wildlife Service have issued biological opinions that address the impacts of the Department's Restoration Program. The Regional General Permit will expire December 1, 2009.

Contractors implementing action items requiring USACE Section 404 certification from the Los Angeles District will be responsible for obtaining separate approvals for each action item. Most restoration action items needing USACE approval may qualify under Nationwide Permits #3 (Maintenance), #13 (Bank Stabilization), #14 (Linear Transportation), or #27 (Stream and Wetland Restoration Activities).

The Fisheries Restoration Grant Program will submit an annual application for a programmatic Section 401 Certificate to the State Water Resources Control Board. A description of project work and methods to prevent impacts on water quality will be provided annually to the State Water Resources Control Board, and to the appropriate regional boards.

The Department's lake and stream alteration agreement process (Fish and Game Code Section 1600 et seq.) is an integral part of stream restoration planning and implementation. An agreement is developed for each action item which defines required measures to minimize disturbance to the stream environment. Procedures to accomplish this task are contained in "A Field Guide to Stream and Lake Alteration Agreements" (Department of Fish and Game, Environmental Services Division, 1994). Activities such as installing culverts to provide fish passage, operating equipment in or near streams, and installing bank stabilizing structures are all discussed in the context of minimizing impacts.

All features of this project requiring CEQA review are being provided in sufficient detail to facilitate public review and clearly define the environmental evaluation. In order to achieve this goal, the Restoration Program action items are considered to fall into three categories corresponding to similar activities and requirements for CEQA review. These three categories of action items are as follows:

Public Involvement, Planning, Research, Monitoring, Education and Habitat Acquisition Action Items

Action items in this category will include watershed evaluation, assessment, planning, technical training, public education, and habitat acquisition projects. The names of 74 action items in this category are presented in a list in Appendix A, Table A-1. These action items all qualify as either statutory or categorical exemptions under CEQA Guidelines sections 15262 (Feasibility and Planning Studies), 15306 (Information Collection), 15313 (Acquisition of Lands for Wildlife Conservation Purposes), and 15322 (Educational or Training Programs Involving No Physical Changes). These action items have no potential to change any physical conditions including land, air, water, minerals, plants, animals, ambient noise, historic sites, or aesthetics. Based upon these facts, these types of action items will not be discussed further in this document.

Restoration Element - Minor Action Items

Action items under this category only include small stream habitat restoration activities that improve spawning and rearing habitat for salmon and steelhead trout, without impacting other species. The names of 10 action items in this category are presented in a list in Appendix A, Table A-2. The designs of the action items have been reviewed by the Department and will be implemented by the California Conservation Corps (CCC) and other hand labor crews. These crews and their crew supervisors are trained by Department personnel on life cycle and habitat needs of salmon and steelhead trout, as well as other listed species within the geographic scope of the activity. The crews and their supervisors also attend workshops and technical training on salmonid stream habitat restoration techniques. Department personnel closely supervise all stream restoration actions implemented under this restoration element. Department personnel inspect each action item site for compliance at least once before work begins, once during implementation, and once at the end of a restoration activity.

The stream habitat restoration actions include: installation of digger logs, spider logs, boulder or log weirs, and boulder or log wing deflectors. Stream bank stabilization may include the use of boulder and cobble armoring of eroding banks, log cribbing, willow mattresses, or willow siltation baffles. Revegetation of riparian habitat normally involves the use of willow sprigs or willow or alder seedlings or transplants. Indigenous stocks (when available) will be used for all planting projects. Several of the action items will only involve maintenance of existing instream structures. The techniques that will be used for these action items have proven successful on many north coast streams and are detailed in the current version of the *California Salmonid Stream Habitat Restoration Manual*. This manual describes in detail how the work will be performed in the field.

Heavy equipment will not be used for any of the actions listed under this category. CCC and other labor crews will be utilized to implement the proposed actions. Disturbance of the stream banks will be kept to an absolute minimum. All work will be done with hand tools and riparian vegetation will not be removed. No roads will be constructed to complete action items. All sites are accessible by existing dirt or gravel roads or established trails. Access to restoration activity sites has been identified and will not create bank erosion or cause the removal of riparian trees. Staging areas at the activity sites will be set up on dry stream banks where there will be a minimum, and less than significant, impact to vegetation. Disturbed or bare mineral soils resulting from work activities, which are subject to surface erosion, will be seeded and straw mulched.

These activities are normally classified as categorically exempt according to CEQA Guidelines Sections 15301, Class 1(i), and Section 15304, Class 4(d). Because these types of action items have no potential for causing significant negative impacts they will not be discussed further in this document.

Restoration Element - Major Action Items

There is a notable difference in the level of activity found under this category. A description of each action item (111 total) in this element is located in Appendix A. Complete site plans and prescriptions for action items located in Del Norte, Humboldt, Siskiyou, Trinity, and portions of Mendocino counties are available for review at the Department of Fish and Game Northern California-North Coast Regional Office at 601 Locust Street, Redding, California 96001. For an appointment to view this information, contact Kevin Gale at (530) 225-2462, Monday through Friday, between the hours of 8 a.m. and 5 p.m. This information is also available for review at the Fortuna Field office, 1455 Sandy Prairie Ct., Suite J, Fortuna, CA 95540. For an appointment to view this information, contact Gary Flosi at (707) 725-1072, Monday through Friday, between the hours of 8 a.m. and 5 p.m.

Complete site plans and prescriptions for action items located in Marin, Napa, San Luis Obispo, San Mateo, Santa Cruz, Sonoma, and portions of Mendocino counties, are available for review at the Department of Fish and Game, Central Coast Region, office of Senior Biologist Supervisor, Bob Coey, 7329 Silverado Trail, Yountville, California 94559. Appointments may be made by telephoning (707) 944-5573, Monday through Friday, between the hours of 8 a.m. and 5 p.m.

Complete site plans and prescriptions for the action item located in Los Angeles, Santa Barbara and Ventura counties, are available for review at the Department of Fish and Game, South Coast Region, office of Senior Fishery Biologist Specialist, Mary Larson, 4665 Lampson Ave, Suite C, Los Alamitos, California 90720. Appointments may be made by telephoning (562) 342-7186, Monday through Friday, between the hours of 8 a.m. and 5 p.m.

These items require larger size material and increased volumes to be moved by heavy equipment and, in so, doing involve certain limited construction activities. This category uses many of the same instream habitat restoration techniques discussed in the previous element. In addition, upslope earthmoving and culvert replacement activities are also included.

Typically, these stream habitat restoration activities use dump trucks to deliver logs, root wads, or quarry rock to staging areas, and front-end loaders to deliver material to restoration sites. Existing stream crossings will be used to access the stream in most cases. If stream crossings do not exist, the least damaging access point will be selected based upon the size, type, and density of riparian vegetation. Where use of such access points is necessary, riparian vegetation can be affected, particularly the upper part of plants may be damaged, with the roots and lower parts receiving minimal damage. Plants damaged in this way will usually re-sprout and recover.

Hydraulic excavators or backhoes may be used to excavate trenches or keyways in stream banks to anchor logs or boulder structures. Excavators are used to place materials, construct instream structures, and stabilize stream banks with boulders and logs. Willow cuttings are usually placed into the keyway trenches around the logs or boulders and then the trench is backfilled with cobble and native soil. This procedure anchors the structure into the stream bank, accelerates the establishment of willows around the structure, and prevents the stream from scouring around the newly placed structure.

Some major action items will stabilize stream banks or small stream-side landslides. These action items will armor and buttress the landslide or stream bank using boulders, logs, root wads, and loose rock revetment. Revetments are designed with logs, root wads, and boulders that project into the stream to provide instream cover and velocity breaks for salmonids. Smooth riprap, however, which accelerates water velocities along the stream bank, is not permitted under this program. When practical, the bank will be sloped back to a minimum 1.5 to 1 slope. A toe trench will be excavated at the toe of the landslide or eroding bank. The excavated trench will be backfilled with boulders at least three feet in diameter and will extend up to the high-water mark. Rock from the toe trench, up to the high-water mark, will be of a size that will withstand normal high flows. Revetment will extend upstream and downstream of the unstable reach and will be keyed into the stable banks.

Runoff from above the slide or eroding banks will be diverted away from the area being stabilized. The slide face will be revegetated using indigenous plants. Willow cuttings will be placed in the toe trenches. Browse protectors will be used on seedlings to prevent predation by browsing animals.

All work, except for the revegetation, will take place during the summer and fall (low flow period) and shall be completed before the first significant seasonal rainfall. Planting of seedlings will take place after December 1, or when sufficient rainfall has occurred, to ensure the best chance of survival of the seedlings, but in no case later than April 1. All habitat improvements will be done in accordance with techniques described in the *California Salmonid Stream Habitat Restoration Manual*.

Upslope action items in this section will upgrade or decommission roads by implementing all or part of the following tasks: road ripping or decompacting; installing or maintaining rolling dips (critical dips); installing or maintaining waterbars and crossroad drains; replacing, maintaining or cleaning culverts; outsloping roadbeds; revegetating work sites; and excavating stream crossings with spoils stored on site or end-hauled.

Sites which are expected to erode and deliver sediment to the stream are the only locations where work will be authorized under this category. Work will not be authorized to improve aesthetic values only.

Removal of road and skid trails will include retrieving unstable material sidecast during original road construction and excavation of stream crossings and other watercourse fill. Stream crossings will be excavated to original width, depth, and slope to expose natural channel morphology and armor. Side slopes will generally match original contours above and below the road. Culverts that are replaced in fish bearing reaches of streams will be done in a manner to allow for unimpeded upstream and downstream fish passage.

When fill material is placed on road benches for permanent storage, the roadbench will be ripped or decompacted first. The fill will then be placed against the cutbank and shaped to blend with the surrounding topography that existed prior to road construction. Outsloping of the roadbed will occur as needed, to reduce potential sediment delivery to the stream where there is insufficient fill available to recontour the site, or where there is evidence that the overall long-term stability of the site does not justify a full recontour treatment. Where practical, fill will be compacted to the top of the filled cut to reduce the potential for seismically induced landsliding. Spoil material will be stored in stable locations where it will not erode. If stable spoils storage sites are not available within the project area, they will be end-hauled to a stable storage site outside of the project area. Areas chosen for this purpose will be devoid of tree and shrub vegetation. Upon completion of each site, woody debris will be scattered over the surface of the restored area as mulch.

Road crossing removal may involve some removal of vegetation that has grown in sediment that has been deposited upslope of road prisms. Most of this vegetation will be used as coarse wood mulch on bare soils to reduce surface erosion. Some of the material will be transplanted on-site as one component of the restoration action

items. In all cases, disruption of existing vegetation will be minimized.

Culvert replacement requires diverting stream flow around the project site and excavating the existing culvert with heavy equipment. Normally concrete footings are constructed to support a new bottomless culvert or bridge. If appropriate, grade control structures are incorporated into the project area to prevent excessive down-cutting of the stream. All work concerning culvert replacement will be consistent with current Department and NMFS criteria concerning fish passage. Current NMFS fish passage criteria can be found on the web at: http://swr.nmfs.noaa.gov/habitat.htm. Department fish passage criteria can be found in Part IX of the *California Salmonid Stream Habitat Restoration Manual*, available at http://www.dfg.ca.gov/nafwb/manual.htm.

Fish screens are constructed within existing irrigation diversions to prevent entrainment of juvenile salmon and steelhead. Fish screens are composed of a concrete foundation and walls. A steel framework supports perforated screen panels with a mechanical cleaning system. A bypass carries the fish back to the stream. Current NMFS and Department fish screen criteria can be found in Appendix S of the *California Salmonid Stream Habitat Restoration Manual.*

Appendix A contains a list of major action item titles, locations, and descriptions of work that will be implemented at each site. The action item designs are reviewed by the Department and are implemented by contractors utilizing heavy equipment and some hand labor crews. During a pre-project inspection, the contractor and the Department will tour the entire activity area and identify the sites and techniques necessary to carry out the recommendations. The site-specific recommendations will be listed in an inspection report which will be acknowledged by the contractor's signature, as a required element of the activity. The Department will continue to inspect the work site during and after completion of the action item. All road upgrading or decommissioning will be done in accordance with techniques described in Part X of the *California Salmonid Stream Habitat Restoration Manual*, available at http://www.dfg.ca.gov/nafwb/manual.htm. All culvert replacement projects shall be done in accordance with techniques and criteria consistent with current Department and NMFS guidelines concerning fish passage. Implementation of each major action item will be conditioned and controlled to prevent any potentially significant impacts under CEQA.

Environmental Assessment of Each Major Action Item

Each action item is assigned to the appropriate category using the established criteria for each category. The work to be completed for each action item is carefully evaluated to make this determination. Once this evaluation process is completed, the action items described under the Restoration Element - Major Action Items section, are subjected to a systematic environmental analysis. This analysis ultimately prescribes site-specific conditions which must be applied in order to avoid potentially significant

negative effects on the environment, including such effects on endangered, rare, or threatened species and their habitat.

First, all major action items listed in Appendix A will comply with Department policies to conduct archaeological and rare plant surveys. A qualified archaeologist(s) will be contracted to complete the surveys using standard protocols. Rare plant surveys will be conducted following the Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities (Department of Fish and Game, 2000). A review of the Department's Natural Diversity Data Base (NDDB) for each project located in the entire twelve-county programmatic project area is attached to the statement of work for each major action item listed in Appendix A and indicates which plant species found on a State or Federal special status list that could potentially be affected at the work sites. Archaeology and rare plant surveys will be completed prior to any ground disturbing activities. If any potentially significant impact cannot be avoided, the action item will not be implemented. Any site specific recommendations made by a Department biologist, or other qualified biological consultant, to avoid any potentially significant impacts shall become part of the work plan. The Department will ensure that the contractor or responsible party is aware of, and implements, these site specific conditions. Also, the Department will inspect the work site before, during, and after completion of the action item. Any violation of the specific recommendations will be immediately rectified. Failure, or inability, to rectify a particular recommendation will cause all work to cease until a remediation plan is developed that avoids the potentially significant impact.

Next, a review of the Department's NDDB for the entire twelve-county project location indicated which animal species found on a State or Federal special status list may be present at the work sites. This site specific information is also attached to each statement of work in Appendix A. Mitigation measures to avoid impacts to these species are presented along with other mitigation measures in Appendix B, Mitigation Measures, Monitoring and Reporting Program. In the absence of site-specific information, species identified as having potential to be affected at a work site will be presumed to be present and mitigation measures to avoid impact to that species will be implemented. Any site-specific surveys to confirm the presence, or absence, of a species at a work site will follow the Guidelines for Conducting Project Specific Endangered, Rare, and Threatened Species Surveys (Appendix C). Streambed Alteration Agreements and contracts for each site will be conditioned to avoid impacts to any special status species that could potentially be affected at that site. The Department will ensure that the contractor or responsible party is aware of all specific conditions that apply to their work site. Also, the Department will inspect the work site before, during, and after completion of the action item to ensure compliance with mitigation measures to avoid potential impacts to endangered, rare, or threatened species. Any violation of the specific recommendations will be immediately rectified. Failure or inability to rectify a particular recommendation will cause all work to cease at that site until a remediation plan is developed.

Through careful design, scheduling, and monitoring, any and all potentially significant impacts associated with the major action items will be avoided or mitigated to below a level of significance under CEQA. Additional details regarding implementation of major action items, including required mitigation measures, are detailed in the environmental checklist section below.

Monitoring

Project monitoring is considered an important element in the activity development and implementation process. The monitoring process provides performance control during the activity and also provides a measure of the benefits, insight, and guidance for future projects.

Activity monitoring during implementation is geared to ensure that all regulatory environmental issues are strictly addressed including air, water, and avoiding impacts to sensitive plant and animal species. During implementation, activities are carefully monitored to make sure plans are followed by using the correct materials and techniques so that the objectives of the activities are met while still protecting the environment.

Post-activity monitoring begins with information collected immediately after the activity is completed and documents whether the project was completed as designed and according the contract specifications. This information includes documenting the exact location where the activity has occurred with reference points and survey marks. Final project reports should contain "as-built" descriptions with design drawings and photographs (both before and after the activity) are collected. A complete activity description including the objectives of the activity must be retained.

The next phase of post-activity monitoring should occur within one to three years after an action item is complete. The Department will randomly select ten percent of the action items within each project work type for evaluation. This evaluation shall be recorded on standard project evaluation forms developed by California Department of Fish Game using procedures developed by the Department and described in the *California Salmonid Stream Habitat Restoration Manual*, Part VIII, Project Monitoring and Evaluation. Physical features associated with an activity are generally more easily measured and interpreted. Biological data, especially anadromous fish data, is more difficult to collect and interpret. Reliable analysis of anadromous salmonid population response to habitat improvement prescriptions generally require many years of trend data.

Complete monitoring specifications are included in the *California Salmonid Stream Habitat Restoration Manual* including survey protocols and data interpretation. Additional details on monitoring and reporting requirements are presented in Appendix

B.

REFERENCES:

California Department of Fish and Game. 1994. A Field Guide to Stream and Lake Alteration Agreements. Environmental Services Division. Calif. Fish Game.

California Department of Fish and Game. 1997. Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities. Environmental Services Division. Calif. Fish Game.

Flosi, G, S. Downie, J. Hopelain, M. Bird, R. Coey, and B. Collins. 1998. *California Salmonid Stream Habitat Restoration Manual*. Third Edition. Calif. Fish and Game. The most current version of the manual is available at: http://www.dfg.ca.gov/nafwb/manual.html. A hard copy of the manual may be requested from the California Department of Fish and Game, Native Anadromous Fish and Watershed Branch, attn. Habitat Restoration Coordinator, 830 S St., Sacramento, CA 95814.

Flosi, G, S. Downie, M. Bird, R. Coey, and B. Collins. 2003. *California Salmonid Stream Habitat Restoration Manual*. Volume II, Third Edition. Calif. Fish and Game. The most current version of the manual is available at: http://www.dfg.ca.gov/nafwb/manual.html.. A hard copy of the manual may be requested from the California Department of Fish and Game, Native Anadromous Fish and Watershed Branch, attn. Habitat Restoration Coordinator, 830 S St., Sacramento, CA 95814.

Hagans and Weaver. 1994. Handbook for Forest and Ranch Roads. 161 p. Prepared by William E. Weaver, Ph.D. and Danny K. Hagans, Pacific Watershed Associates for the Mendocino County Resource Conservation District, 405 Orchard Ave., Ukiah, CA 95482.

3/28/05

ENVIRONMENTAL CHECKLIST FORM

1. Project Title: The 2005 Fishery Restoration Grants Program in Del Norte, Humboldt, Los Angeles, Marin, Mendocino, Napa, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, Siskiyou, Sonoma, Trinity and Ventura counties

2. Lead Agency Name and Address:

   California Department of Fish and Game
   Native Anadromous Fish and Watershed Branch
   830 S Street
   Sacramento, CA 95814-7023

3. Contact Person and Phone Number:

Bob Coey	Gary Flosi	Mary Larson
(707) 944-5582	(707) 725-1072	(562) 342-7186
Central Coast Region	Northern California-	South Coast Region
Post Office Box 47	North Coast Region	4665 Lampson Avenue
Yountville, CA 94599	1455 Sandy Prairie Ct. Ste J	Los Alamitos, CA 90720
	Fortuna, CA 95540	

4. Project Location: Various sites in Del Norte, Humboldt, Los Angeles, Marin, Mendocino, Napa, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, Siskiyou, Sonoma, Trinity and Ventura counties (Appendix A).

5. Project Sponsor's Name and Address:
   California Department of Fish and Game
   Native Anadromous Fish and Watershed Branch
   830 S Street
   Sacramento, CA 95814-7023

6. General Plan Designation: Various

7. Zoning: Various

8. Description of Project: Implementation of 111 major action items for restoration of anadromous salmonid habitat (Appendix A). These action items include measures to improve anadromous fish passage, reduce erosion and sedimentation, enhance instream habitat, improve water quality and improve juvenile survival.

9. Surrounding Land Uses and Setting: Briefly describe the project's surroundings: Primarily forest lands used for timber production. Some action items will be located in agricultural lands.

10. Other Public Agencies Whose Approval Is Required: U.S Army Corps of Engineers, North Coast Regional Water Quality Control Board, Bay Area Regional Water Quality Control Board, Central Coast Regional Water Quality Control Board, Los Angeles Regional Water Quality Control Board.

3/28/05

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture Resources		Air Quality
	Biological Resources		Cultural Resources		Geology /Soils
	Hazards & Hazardous Materials		Hydrology / Water Quality		Land Use / Planning
	Mineral Resources		Noise		Population / Housing
	Public Services		Recreation		Transportation/Traffic
	Utilities / Service Systems		Mandatory Findings of Significance		

DETERMINATION: (To be completed by the Lead Agency)
On the basis of this initial evaluation:

	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a A potentially significant impact@ or A potentially significant unless mitigated@ impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Larry Week, Chief, Native Anadromous Fish and Watershed Branch — Date

3/28/05

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS – Would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X
See attached explanations.				
II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				X
See attached explanations.				

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?				X
e) Create objectionable odors affecting a substantial number of people?				X
See attached explanations.				

IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X

IV. BIOLOGICAL RESOURCES (continued):				
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X
See attached explanations.				
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?				X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
See attached explanations.				

VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				X
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?				X
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
See attached explanations.				

VII. HAZARDS AND HAZARDOUS MATERIALS B Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X	
See attached explanations.				

VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				X
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				X
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				X
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X
See attached explanations.				

IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
See attached explanations.				
X. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X
See attached explanations.				
XI. NOISE B Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X
See attached explanations.				
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
See attached explanations.				
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?			X	
See attached explanations.				

XIV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X
See attached explanations.				
XV. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				X
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Result in inadequate parking capacity?				X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X
See attached explanations.				

XVI. UTILITIES AND SERVICE SYSTEMS Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project=s projected demand in addition to the provider=s existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project=s solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X
See attached explanations.				

3/28/05

XVII. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				X
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X
See attached explanations.				

Exhibit 2: CEQA Documentation

EXPLANATION OF RESPONSES TO INITIAL STUDY ENVIRONMENTAL CHECKLIST

I. AESTHETICS

a) The project will not have an adverse effect on a scenic vista. Such an impact will not occur because the project will stabilize, restore, and revegetate damaged and eroded sites to produce a more natural and esthetically pleasing appearance.

b) The project will not damage scenic resources such as trees, rock outcroppings, and historic buildings. Such an impact will not occur because the project will not disturb large trees or other scenic features in the process of restoring damaged sites.

c) The project will not substantially degrade the existing visual character or quality of the work sites and their surroundings. Such an impact will not occur because in most cases the restoration project will restore the natural character of disturbed sites. Where non-natural structures (such as fish screens) are constructed, they will be of small size and compatible with the appearance of with their surroundings.

d) The project will not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area of the worksites. Such an impact will not occur because none of the restoration project action items require installation of artificial lighting.

II. AGRICULTURE RESOURCES

a) The project will not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. Such an impact will not occur because most project worksites are located away from FMMP designated farmland. Project actions associated with farmland (such as fish screens) are designed to allow continued use of farmland with reduced impacts to anadromous salmonids.

b) The project will not conflict with existing zoning for agricultural use or a Williamson Act contract. Fish habitat restoration actions will not change existing land use.

c) The project will not involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use. Fish habitat restoration actions are either away from, or are compatible with, existing agricultural uses.

III. AIR QUALITY

a) The project will not conflict with or obstruct implementation of the applicable air quality plan. Such an impact will not occur because implementation of the project does not create any features that would be a source of air pollution. Use of vehicles and heavy equipment during construction will be on a limited scope and a short duration and is not expected to adversely affect air quality.

b) The project will not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Such an impact will not occur because of the limited scope of construction activities and the fact that work sites are located in rural areas that are in overall attainment of air quality standards.

c) The project will not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors). Such an impact will not occur because the project involves no ongoing sources of air pollution.

d) The project will not expose sensitive receptors to substantial pollutant concentrations. Such an impact will not occur because the project will not significantly increase pollutant concentrations.

e) The project will not create objectionable odors affecting a substantial number of people. Project actions are designed to restore natural habitat conditions for salmonids, and will not create any stagnant water that might produce objectionable odors.

IV. BIOLOGICAL RESOURCES

a) The project will not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service. Such an impact will not occur because project activities are designed to improve and restore stream habitat, to provide a long-term benefit to both anadromous salmonids and other fish and wildlife. The project will be implemented in a manner that will avoid short-term adverse impacts to rare plants and animals and cultural resources during construction; the mitigation measures that will be implemented to avoid short-term impacts to rare plants and animals and cultural resources are described in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

b) The project will not have a substantial adverse effect on any riparian habitat or other sensitive natural communities identified in local or regional plans, policies and regulations, or by the California Department of Fish and Game or U. S. Fish and Wildlife Service. Such an impact will not occur because the project actions are designed to correct past habitat degradation and restore and enhance riparian habitat and associated upland habitats.

c) The project will not have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. The project actions will have either no effect on wetlands or will be beneficial to wetlands.

d) The project will not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. The project will enhance the movement of anadromous fish by the replacement or removal of culverts and bridges that are barriers to fish migration.

e) The project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Such an impact will not occur because project actions are designed to restore and enhance biological resources. Some minor disturbance of grasses and shrubs will occur where stream structures are keyed into the stream banks. Care will be taken not to disturb any mature trees. Riparian vegetation will be reestablished where construction activities disturb existing plants, and additional native plants will be planted to enhance the riparian vegetation.

f) The project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. Such a conflict will not occur because the project restoration actions will not have a significant adverse impact on any species or habitat. Project actions are designed to restore the natural character of the fish and wildlife habitat at the project work sites. The project specifically supports the California Salmon, Steelhead Trout and Anadromous Fisheries Program Act (Fish and Game Code Section 6900 et. seq.)

g) Species Impacts for the following species include (mitigation measures are included in Appendix B):

g.i) Point Arena mountain beaver (*Aplodontia rufa nigra*). The Point Arena mountain beaver (PAMB) is a burrowing rodent found in coastal Mendocino County, in an area of approximately 24 square miles (from about 2 miles

north of Bridgeport Landing south to about 5 miles south of the town of Point Arena, and from the coast to about 5 miles inland). Mountain beaver inhabit underground burrow systems, associated with moist areas with well drained soils and lush herbaceous vegetation. PAMB populations are typically found in riparian, coastal scrub, or dune scrub habitats; however they may occur in any habitat with brushy or herbaceous cover. PAMB presence is evaluated by surveying for burrows of characteristic size and shape, with signs of recent activity.

Potential impacts to PAMB from salmonid habitat improvement projects include disruption of nesting or other activities due to equipment noise; collapse or damage to burrows from heavy equipment, riparian planting, or foot traffic; and removal of vegetation (such removal is usually temporary, but may nonetheless impact PAMB).

g ii) California freshwater shrimp (*Syncaris pacifica*). As an aquatic species California freshwater shrimp (CAFS) depend on the availability of slow moving perennial water and suitable habitat to survive. Habitat for CAFS as described in the Recovery Plan consists of:

- -Slow moving streams 12-36 inches in depth
- -Exposed live roots of trees such as willow or alder
- -Undercut banks greater than 6 inches
- -Overhanging woody debris or stream vegetation and vines including stinging nettles, grasses, vine maple and mint.

Migration of CAFS is not well understood, however it is speculated that CAFS require access to slow moving waters adjacent to continuous, stable, well vegetated stream banks, or deep stable undercuts banks during winter high flows.

Salmonid restoration projects typically enhance or create habitat that is also suitable for CAFS. Stable undercut banks, well vegetated with a variety of native plant species, alongside deep perennial pools, are components of healthy riparian ecology and the end result of many restoration projects. In addition, salmonid restoration projects can remove existing threats to CAFS by:

- Eliminating grazing in the riparian corridor
- Reclaiming riparian vegetation through plantings and increased setbacks in agricultural settings
- Removing summer dams (and culvert) and replacing summer crossings with bridges
- Improving road drainage and maintenance that reduces water and sediment delivery to streams
- Reversing the impacts of flood control practices by replacing vegetation and large woody debris, and by helping restore flood plains and reducing channeling

- Stabilizing banks with vegetation that promotes CAFS habitat
- Removing migration barriers

While salmonid restoration projects typically enhance or create these habitat and instream conditions that are favorable for CAFS and associated native aquatic species, project activities in wetted stream habitats may directly impact individuals when present. Whereas project activities in dry stream habitats, will not have a direct impact on individuals. Where habitat exists, instream project activities may indirectly impact the species through the loss of habitat. Mitigation measures are implemented to avoid directly impacting individuals when present however, some short term direct and indirect impacts can occur.

Direct impacts may include

- Short term degradation of water quality at project site resulting in reduction in feeding temporarily
- Addition of instream complex shelter (large and small woody debris, boulders, aquatic vegetation) resulting in temporary dislodgement from undercut banks and vegetation
- Dewatering of project site and movement of animals from preferred habitat to nearby suitable habitat during the project

Indirect impacts may include

- Short term loss of habitat until riparian responds
- Short term degradation of habitat
  - √ loss of unstable undercut banks
  - √ short term loss or degradation of overhanging riparian vegetation
- Introduction of migration barriers on one side of the stream

g iii) California red-legged frog *(Rana aurora draytonii)*. As an aquatic species, frogs are generally present in the riparian corridor year-round, utilizing both stream and bank habitat. Impacts to the species have the potential to occur during project implementation activities such as (but not limited to) channel dewatering, unscreened pumping, heavy equipment usage, work with hand tools, removal of riparian vegetation, spills from refueling vehicles, and reintroduction of non-native species into stream. Habitat removal and/or degradation is not the result of restoration projects. Typically, removal of riparian vegetation for the purpose of implementing a project does not occur, but is minimal when it does. Many projects involve restoring the riparian corridor that is absent. More often, dewatering, heavy equipment usage, and work with hand tools occurs during project implementation. All impacts are temporary and can be minimized to avoid take of the species.

g iv) Least Bell's vireo *(Vireo bellii pusillus)*. Impacts to the species have the potential to occur when as a result of removal of riparian vegetation (willows and low shrubs) during the spring and summer or from disturbance within a 0.25 mile radius of next sites. Typically removal of riparian vegetation for

the purpose of implementing a project does not occur, but is minimal when it does. Many projects involve restoring the riparian corridor that is absent. Removal of willow branches for revegetation at restoration sites has the potential to degrade existing vireo habitat. Noise from heavy equipment has the potential to cause nesting birds to abandon nests. All impacts are temporary and can be minimized to avoid take of the species.

g v) Tiger salamander (*Ambystoma tigrinum*). Impacts to the species are highly unlikely as most implementation projects occur in or near the stream and riparian corridor. Upslope projects are typically limited to road upgrading and decommissioning in areas that are steep, eroding, and often in areas vegetated with trees and shrubs. The species uses ponds and vernal pools for breeding and grassland habitat for estivation, both of which are usually not in proximity to anadromous fish-bearing streams.

V. CULTURAL RESOURCES

a) The project will not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. While ground disturbance will be required to implement the project at some work sites that have the potential to affect historical resources, this potential impact will be avoided through implementation of the protective measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. Resources identified during site-specific surveys will be protected before ground-disturbing activities are permitted at a site. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

b) The project will not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. While ground disturbance will be required to implement the project at some work sites that have the potential to affect archaeological resources, this potential impact will be avoided through implementation of the protective measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. Resources identified during site-specific surveys will be protected before ground-disturbing activities are permitted at a site. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

c) The project will not directly or indirectly destroy any unique paleontological resources or sites, or unique geologic features. While ground disturbance to implement the project at some work sites has the potential to affect these resources, this potential impact will be avoided through implementation of the protective measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. Resources identified during site-specific surveys will be protected before ground-disturbing activities are permitted at a site. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

d) The project will not disturb any human remains, including those interred outside of formal cemeteries. While ground disturbance will be required to implement the project at some work sites that have the potential to affect these resources, this potential impact will be avoided through implementation of the protective measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. Resources identified during site-specific surveys will be protected before ground-disturbing activities are permitted at a site. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

VI. GEOLOGY AND SOILS

a i) The project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault. Such an impact will not occur because the project does not create any structures for human habitation.

a ii) The project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Such an impact will not occur because the project does not create any structures for human habitation.

a iii) The project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. Such an impact will not occur because the project does not create any structures for human habitation.

a iv) The project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. Such an impact will not occur because the project does not create any structures for human habitation.

b) The project will not result in substantial soil erosion or the loss of topsoil. Such an impact will not occur because implementation of the restoration project is designed to contribute to an overall reduction in erosion and sedimentation. Existing roads will be used to access work sites. Ground disturbance at most work sites will be minimal, except for road improvements or decommissioning. Road improvements and decommissioning will involve moving large quantities of soil from road fills and stream crossings to restore historic land surface profiles and prevent chronic erosion and sediment delivery to streams. The potential for substantial soil loss associated with road improvement and decommissioning will be avoided through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

c) Some project worksites are on unstable soils; however, the project will not increase the risk of landslides, lateral spreading, subsidence, liquefaction, or collapse. The project actions are designed to stabilize conditions at these sites in order to reduce sediment delivery to salmonid habitat. Actions implemented to stabilize sites may not be successful in all cases, but site instability will not be increased when compared to existing conditions.

d) Some project work sites will be located on expansive soil; however, the project will not create substantial risks to life or property. Such an impact will not occur because the project will create no habitations, and the majority of the restoration actions will not create rigid structures that could be damaged by expansive soils. The few rigid structures to be created by the project (such as fish screens) will be engineered to withstand expansive soils, if they are present.

e) The project will not create any sources of waste water requiring a septic system.

VII. HAZARDS AND HAZARDOUS MATERIALS

a) The project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Any potential significant hazard associated with the accidental release of coolant and petroleum products used with equipment during construction will be avoided through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

b) The project will not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. At work sites requiring the use of heavy equipment, there is a small risk of an accident upsetting the machine and releasing fuel, oil, and coolant. The potential for accidental release will be reduced to a less than significant level through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

c) The project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Such impact is avoided because the project will not create any feature that will emit hazardous substances.

d) The project worksites are not located on any site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

e) No project work site is located within an airport land use plan or within two miles of a public airport or public use airport.

f) No project work site is located within the vicinity of a private airstrip.

g) The project will not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Except for the case of road decommissioning, the project has no effect on access. The planned decommissioning of selected unused wild land roads will not have a significant impact on emergency vehicle access.

h) The project will not expose people or structures to a significant risk of loss, injury, or death involving wild land fires. At work sites requiring the use of heavy equipment, there is a small risk of an accidental spark from equipment igniting a fire. The potential for accidental fire will be reduced to a less than significant level through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant impacts are avoided or mitigated to below a level of significance.

VIII. HYDROLOGY AND WATER QUALITY

a) The project will not violate any water quality standards or waste discharge requirements. There is the potential for minor short-term increase in turbidity during installation of instream structures or culvert removal, however the mitigation measures described in Appendix B Mitigation, Monitoring and

Reporting will assure that the project actions are in compliance with water quality standards. As a result, mitigation measures will ensure that any potentially significant short-term impacts are avoided or mitigated to below a level of significance.

b) The project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Upslope restoration activities will return drainage to historic patterns thereby decreasing surface runoff and increasing infiltration to the ground water.

c) The project will not substantially alter the existing drainage pattern of the work sites in a manner that would result in substantial erosion or siltation on- or off-site. Such an impact will not occur because the project actions are designed to produce decreased erosion overall. Instream habitat structures, such as boulder weirs or flow deflectors, will produce local redistribution of sediments. These structures will produce a local redistribution of bed load, facilitating the deposition of spawning gravel in riffles, and improving scour to maintain pools for juvenile fish habitat. This local redistribution of bed load will not produce a net increase of erosion.

d) The project will not substantially alter the existing drainage pattern of the work sites, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. The project will decrease the risk of flooding through upslope restoration activities that will return drainage to historic patterns, thereby increasing infiltration and decreasing surface runoff.

e) The project will not create or contribute runoff water that would exceed the capacity of existing or planned storm-water drainage systems, or provide substantial additional sources of polluted runoff. Such an impact will not occur because upslope restoration activities will stabilize slopes and return drainage to historic patterns, thereby decreasing surface runoff and decreasing the silt load delivered to streams in the area of the project.

f) The project will not substantially degrade water quality. During placement of stream habitat structures and culvert replacement, some minor turbidity may be generated. The potential for degradation of water quality will be reduced to a less than significant level through implementation of the mitigation measures presented in Appendix B, Mitigation Measures, Monitoring and Reporting Program. Some short-term minor increase in turbidity may also occur as the streambed around instream structures adjusts during the first high stream flow following activity completion. However, this is not expected to produce a significant increase over background turbidity. As a result, mitigation measures will ensure that any potentially significant short-term impacts to water quality are avoided or mitigated to below a level of significance.

g) The project will not place housing within a 100-year flood hazard area as mapped on any flood hazard delineation map. No housing will be created as part of this project.

h) The project will not place within a 100-year flood hazard area structures which would significantly impede or redirect flood flows. Culvert removal and replacement to be done as part of the project will remove existing impediments to flood flows. Instream habitat structures, such as boulder weirs, deflectors, and bank armor, are built to change the direction and velocity of stream flow. However, these structures are small (sized to affect conditions in the low flow channel) and will not impede flood flows.

i) The project will not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam. Such an impact will be avoided because all instream structures to be created are small and will not significantly impede flood flows.

j) The project will not expose people or structures to a significant risk of inundation by seiche, tsunami, or mudflow. Such an impact will not occur because project actions are designed to improve or stabilize conditions at the work sites. Upslope restoration actions will reduce the chance of mudflow by stabilizing disturbed areas, and restoring natural drainage patterns. Project work sites are not located in areas at risk to inundation by seiche or tsunami.

IX. LAND USE AND PLANNING

a) The project will not physically divide an established community. This impact will not occur because no culvert removal or road decommissioning is proposed in any established community.

b) The restoration activities that comprise this project do not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. Such an impact will not occur because the project's restoration activities are designed to be compatible with local land use plans and ordinances.

c) The project will not conflict with any applicable habitat conservation plan or natural community conservation plan. Such an impact will not occur because project actions are designed to improve aquatic habitat conditions without adversely affecting any other species or their habitats.

X. MINERAL RESOURCES

a) The project will not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. Such an impact will not occur because project actions are only designed to stabilize and restore habitat and soils within the actions area.

b) The project will not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Such an impact will not occur because no mineral resource recovery sites occur at the project work sites.

XI. NOISE

a) The project will not result in exposure of persons to, or generation of noise levels in excess of, standards established in the local general plan or noise ordinance, or applicable standards of other agencies. There may be a minor temporary increase in noise levels at those work sites requiring the use of heavy equipment. While such short-term increase in noise will not produce a significant increase in the noise level in the general environment, there is a potential for equipment noise to affect workers in close proximity to equipment producing noise levels ≥85 db, such as chainsaws or backhoes. However, such an impact will not occur because personnel operating noisy equipment will be required to wear hearing protection. As a result, mitigation measures will ensure that any potentially significant noise impacts are avoided or mitigated to below a level of significance.

b) The project will not result in exposure of persons to, or generation of, excessive ground-borne vibration or ground-borne noise levels. Such an impact will not occur because only minor amounts of ground-borne vibration or noise will be generated short-term at those work sites requiring the use of heavy equipment.

c) The project will not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Such an impact will not occur because most project structures are passive (i.e., contain no moving parts). The only exceptions are the proposed fish screens, which will contain moving brushes to clean the screens. These brushes are driven by slow speed (10-15 RPM) water wheels and will not substantially increase ambient noise levels where installed.

d) The project will not result in a substantial temporary, or periodic, increase in ambient noise levels in the project vicinity above levels existing without the project. Such an impact will not occur because only minor amounts of noise will be generated temporarily at those work sites requiring the use of heavy equipment. At those sites near nesting or breeding sites for listed species, heavy equipment will only be used outside the sensitive periods for nesting or

breeding, as described in Appendix B, Mitigation Measures, Monitoring and Reporting Program. As a result, mitigation measures will ensure that any potentially significant noise impacts are avoided or mitigated to below a level of significance.

e) None of the project work sites are located within two miles of a public airport or public use airport.

f) None of the project work sites are located within the vicinity of a private airstrip.

XII. POPULATION AND HOUSING

a) The project will not induce substantial population growth in an area, either directly or indirectly. Such an impact will not occur because the project will not construct any new homes, businesses, roads, or other human infrastructure.

b) The project will not displace any existing housing and will not necessitate the construction of replacement housing elsewhere.

c) The project will not displace any people and will not necessitate the construction of replacement housing elsewhere.

XIII. PUBLIC SERVICES

a) The project will not have any significant environmental impacts associated with new or physically altered governmental facilities. Issuance of restoration grants to government agencies could, in some cases, lead to minor increases in staffing to complete projects. Such increases will not lead to any significant adverse impacts, because the increases are short term, and no significant construction will be required to accommodate additional staff.

XIV. RECREATION

a) The project would not increase the use of existing neighborhood and regional parks, or other recreational facilities. Such an impact will not occur because the project actions will restore anadromous fish habitat and do not significantly alter human use or facilities at existing parks or recreational facilities. Overall, the Restoration Program is expected to increase recreation opportunities by assisting in restoring populations of anadromous fish.

b) The project does not include recreational facilities and does not require the construction or expansion of recreational facilities.

XV. TRANSPORTATION/TRAFFIC

a) The project will not cause a substantial increase of traffic, in relation to the existing traffic load and capacity of the street system. Such an impact will not occur because the project will result in only minor temporary increases in traffic to primarily wild land sites during implementation of habitat improvement measures.

b) The project will not exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways. Such an impact will not occur because the habitat improvement actions will not generate a significant amount of traffic at each individual work site and because the work sites are dispersed throughout the coastal counties.

c) The project will not result in any change in air traffic patterns.

d) The project will not alter roads in any way that will substantially increase hazards to transportation. The proposed project will reduce hazards to transportation, because the proposed project will correct and reduce landslide and erosion damage on the selected rural roads.

e) The project will not result in inadequate emergency access. Such an impact will not occur because during replacement of small road crossings, an alternate route for traffic will be provided around the construction.

f) The project will not significantly affect parking capacity or demand for parking.

g) The project will not conflict with adopted policies, plans, or programs supporting alternative transportation.

XVI. UTILITIES AND SERVICE SYSTEMS

a) The project will not produce wastewater.

b) The project will not require, or result in the construction of, new water or wastewater treatment facilities or expansion of existing facilities. Such an impact will not occur because the project will not produce wastewater.

c) The project will not cause significant adverse environmental effects associated with the construction of new storm water drainage facilities or expansion of existing facilities.

d) The project will have sufficient water supplies available to serve the project from existing entitlements and resources.

e) The project will not produce wastewater.

f) The project will not generate solid waste requiring disposal in a landfill.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

a) The project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Such a potential does not exist because the project will be implemented in a manner that will avoid short-term adverse impacts to rare plants and animals, and cultural resources during construction; the mitigation measures that will be implemented to avoid short-term impacts to rare plants and animals, and cultural resources are described in Appendix B, Mitigation Measures, Monitoring and Reporting Program. The Project activities will provide a long-term benefit to both anadromous salmonids and other fish and wildlife.

b) The project does not have adverse impacts that are individually limited, but cumulatively considerable. Cumulative adverse impacts will not occur because potential adverse impacts of the project are only minor and temporary in nature. It is the goal of the project that the beneficial effects of habitat enhancement actions will be cumulative over time and contribute to the recovery of listed anadromous salmonids.

c) The project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly. The habitat enhancement measures implemented as part of this project will contribute to improved water quality, increased soil stability, and the recovery of listed salmonids, all of which will be beneficial to human beings.

Exhibit 2: CEQA Documentation

Exhibit 2: CEQA Documentation

Appendix A

Action Items Proposed for Funding

Exhibit 2: CEQA Documentation

Table A-1 Exempt Project List

Proj #	Proj Type*	Project Title	Grant Recipient
20	AC	AmeriCorps WSP Match	CCC - Fortuna
35	ALL	Adaptive Watershed Projects 2004	DFG - Sacramento
221	ED	CCSE Education Program	Central Coast Salmon Enhancement
56	ED	Scott River Restoration Education	Etna Union Elementary School
79	ED	Watershed Science Somoma Valley	Sonoma Ecology Center
250	ED	Salmon & Riparian Education	Trinity RCD
128	HA	Wolverton Gulch Easement Project	North Coast Regional Land Trust
259	HA	Arroyo Seco - McKinsey Ranch	The Nature Conservancy
196	MD	South Central Coast Coho Program	DFG - Aptos
12	MD	Mill Creek Fish Monitoring	Rowdy Creek Fish Hatchery
36	MD	Sci Aid Central & South Coast	DFG - Fortuna
208	MD	Validation Monitoring Prairie Creek	Humboldt State Foundation
40	MD	Sproul Cr. DSM	Eel River Salmon Restoration
153	MD	Life History Central Coast	NOAA Fisheries - Santa Cruz
9	MD	Topanga Creek Monitoring	RCD Santa Monica Mt.
10	MD	Malibu & Arroyo Sequit Creeks	RCD Santa Monica Mt.
205	MD	Scott River Flow Gaging	Siskiyou RCD
63	MD	Salmon River Weak Stocks Assess	Salmon River Restoration Council
200	MD	Scott River Water Quality	Siskiyou RCD
119	MD	Juvenile Monitoring Klamath Estuary	Yurok Tribal Fisheries
261	MD	Steelhead Distribution Salinas	UC Davis
48	MD	Juvenile Monitoring Humboldt Bay	DFG - Arcata
202	MD	Scott River DSM	Siskiyou RCD
54	MD	Coastal Mendocino Monitoring	DFG - AFRAMP
52	MD	Lower Redwood DSM	DFG - AFRAMP
51	MD	Upper Redwood DSM	DFG - AFRAMP
224	MD	Shasta & Scott Juvenile Emigration	Shasta Valley RCD
260	MD	Juvenile Abundance Trends	Humboldt State Foundation
71	MO	Effects Fire Canoe Creek	CA State Parks - North Coast Dist.
273	MO	Effectiveness Restoration Projects	Shasta Valley RCD
284	MO	Upper Mattole Monitoring Phase II	Mattole Restoration Council
211	OR	Lower Eel O & S	Humboldt County RCD
230	OR	Shasta Valley RCD Coordinator	Shasta Valley RCD
108	OR	Napa River Basin	Napa County RCD
39	OR	Passage Assessment Database	PSMFC
37	OR	Coho Recovery Data	DFG - WHDAB
33	OR	CHRPD 2005-2006	DFG - Sacramento
219	OR	Lindsay Creek Watershed Group	RCAA
120	OR	Smith River Watershed Coordinator	Del Norte County
276	OR	HBWAC Support	RCAA
129	OR	Jacoby & Freshwater Easements	Jacoby Creek Land Trust
141	PI	FishNet 4C	County of Marin
159	PI	Fish Habitat Specialist	CCC - Fortuna
16	PI	Tri-County FISH Team	Tri-County FISH Team
271	PL	SBNF Navarro Inventory	Mendocino County RCD
197	PL	Garcia River Forest, Phase 1	PWA
112	PL	Tombs & Wheatfield Fork Gualala	Sotoyome RCD
101	PL	Garcia River Watershed Support	Craig Bell
42	PL	Mendocino Coast Coho Data	Regents of UC

Exhibit 2: CEQA Documentation

Table A-1 Exempt Project List

Proj #	Proj Type*	Project Title	Grant Recipient
70	PL	Lower Bull Cr. Planning	CA State Parks -North Coast Dist.
104	PL	Devils Elbow Landslide Assessment	CA State Parks - North Coast Dist.
73	PL	Beaver Creek Assessment	USFS - Scott River
232	PL	Shasta Water Assn Dam Removal	Shasta Valley RCD
34	PL	Arch & Plant Surveys	DFG - Sacramento
278	PL	Dutch Bill Market Street Passage	Gold Ridge RCD
209	PL	Arroyo Grande Fisheries Assess	Central Coast Salmon Enhancement
210	PL	Chorro & Stenner, Phase 1	PWA
23	PL	Quiota Creek Design	Santa Barbara County
152	PL	Steelhead Santa Barbara Coast	NOAA Fisheries - Santa Cruz
264	PL	San Juan & Trabuco Cr. Plan	Trout Unlimited, South Coast
62	PL	French Ranch Assessment	ERWIG
118	PL	Salt Creek (Klamath)	Yurok Tribal Fisheries
162	PL	Lower Jacoby Plan	City of Arcata
255	PL	NF Mad Inventory	PCFWWRA
256	PL	Smith River Tribs Inventory	PCFWWRA
82	PL	San Geronimo Assessment	Marin County Open Space District
47	PL	Salmon Creek Roads Assessment	Gold Ridge RCD
238	PL	Standley/Hollow Tree Assessment	Trout Unlimited
102	PL	Durphy Creek Planning	CA State Parks - North Coast Dist.
281	RE	Coho Restoration Program	MBSTP
207	TE	Culvert & Roads Central Coast	SRF
7	TE	Fish Passage Case Studies	Michael Love & Associates
60	TE	2005 Coho Confab	SRF
164	TE	Bioengineering Techniques	SRF

*	Project Type
AC	AmeriCorps Program only
ED	Education
HI	Instream Habitat Restoration
HR	Riparian Restoration
MD	Monitoring Projects (data)
MO	Project Monitoring Following Project Completion
OR	Watershed Organization Support
PI	Public Involvement
PL	Watershed Evaluation, Assessment, and planning
PM	Project Maintenance
RE	Cooperative Rearing
TE	Technical training
WC	Water Conservation Measures

Exhibit 2: CEQA Documentation

Table A-2 Minor Action Item List

Proj #	Proj Type*	Project Title	Grant Recipient
77	HR	Little Mill Creek Riparian	CCC - Fortuna
223/SFE2	HU	2004 Blue Goo Slide Program	Eel River Salmon Restoration
SFE 6	HU	Klien Gully Stabilization Project	Seely Watershed Association
286	HR	Riparian in Mattole Headwaters	Mattole Restoration Council
EEL 3	HR	Skaggs Upper 80 Tree Planting Project	Skaggs Ranch
279	HR	Solar Irrigation Project	ERWIG
SFE 7	HS	Tooby Park Gully Rehabilitation Stage 2	Seely Watershed Association
172	HR	Shasta River Jim Rice Riparian	Resource Mgt.
na	HI	2005 Murray Camp Habitat Improvement	CCC
na	HI	Tyrells - Upper Austin Creek	CCC

Exhibit 2: CEQA Documentation

Table A-3 Major Action Item List

County	Type	Project Title
Del Norte	HU	Bummer Spurs Rehab
	HU	Dominie Creek
	HR	Lower Terwer Riparian
	HI	Mynot Creek Instream Habitat Restoration
	HR	Salt Creek Riparian Habitat Enhancement
	HI	Sultan Creek Instream
	HI	Tryon Slough Anadromous Fish Habitat Recovery Project
	HI	Wilson Creek Instream
	HB	Yonkers Creek Fish Passage-Barrier Removal Project
Humboldt	HU	2004 Leggett Creek
	HS	Ambrozini Hay Field Bank Stabilization
	HU	Bear Creek County Road
	HB	Beith Creek Culvert Barrier Modification
	HU	Brightman/Diamond D
	HB	Chadd Creek 101 Culvert Passage Project
	HS	China Creek Bank Stabilization and Bridge Replacement
	HU	Dean Creek Headwaters Erosion Control Project
	HS	DelBiaggio /Reas Creek Restoration
	HS	Diamond R Mill Field
	HS	East Branch SF Eel Bank Stabilization Project Phase II
	HI	Elk Creek Improvement
	HU	Fort Seward Ranch Watershed Improvement Project Additional Sites
	HU	JKR Ranch Upslope Sediment Reduction Project
	HU	Larabee Creek Subdivision Upgrade
	HR	Lower Eel HR 05 Howe
	HR	Lower Eel HR 05 Price
	HU	Lower Eel HU 05
	HI	Maple Creek Cover
	HU	Middle VDR Phase 2
	HU	Mid-Mattole Coho
	HI	Mill Creek Urban Stream Restoration
	HI	North Fork Ah Pah Creek Instream Habitat Enhancement Project
	HS	Nyberg/Noble Van Duzen River Erosion Control Project
	HS	Ozanian Creek Restoration
	HS	Paine Riparian Project
	HU	Panther Gap-Mattole Restoration Council/SWRCB Project
	HU	Quail Hollow Bio-engineering
	HU	Redwood Cr - 1300 Roads North
	HU	Redwood Creek Road DVA PCFWWRA/319
	HU	Redwood Creek Road DVB PCFWWRA/319
	HU	Redwood Creek Road O-3 PCFWWRA/319
	HI	Rex's Wing Dam Phase III
	HB	Rocky Gulch Culvert Replacement
	HS	Salmon Cr. Stream Bank Stab
	HU	Salmon Creek Upslope
	HU	Sawmill Creek Road Upgrade Phase II
	HB	SF Janes Creek Phase II
	HU	Skaggs Upper 80 Culvert Upgrade Project
	HB	South Fork Bear Creek Culvert Upgrade I
	HB	South Fork Bear Creek Culvert Upgrade II
	HI	Strongs Creek Salmonid Habitat Restoration Phase 1
	HS	Teague II Van Duzen River Bank Stabilization
	HU	Upper Mattole Coho
	HI	Upper Mattole Large Wood 2005
	HU	Upper Mattole River Watershed Rehabilitation Project
	HS	VDR Mora
	HB	Warren Creek Culvert
	HS	Van Duzen River/Weare Bank Stabilization Project
	HU	Wilson Creek Crossing
	HU	YES Group Water Board Road Upgrade Project

← Bear Creek"
← "Upper Mattole Coho Recovery"

Exhibit 2: CEQA Documentation

Table A-3 Major Action Item List

County	Type	Project Title
Los Angles	HB	Solstice Creek/Corral Canyon
Marin	HU	Kent Canyon & Deer Park Roads Sediment Control
Mendocino	HU	Bradford Ranch Upslope Sediment Reduction Project Additional Sites
	HB	Camp Creek Fish Passage
	HU	Hansen Ranch Subdivision
	HU	Hollow Tree (Garcia River)
	Hu	Hollow Tree Creek Watershed Restoration Project –Walters Creek Additional Sites
	HU	Hollow Tree Phase 3
	HU	Irmulco Road/Upper NF Noyo
	HI	South Fork Ten Mile River LWD Project
	HI	Usal Creek Channel Restoration
	HI	Walker Creek Restoration
Napa	HS	Dry Creek Bank, Project #1
	HR	Rutherford Society Arundo
San Luis Obispo	HR	Walters Creek Riparian, Phase II
San Mateo	HU	Bear Gulch Watershed Plan
Santa Barbra	HB	Arroyo Hondo Culvert Project
	HU	Gaviota State Park Roads Repair
	HB	Gobernador Creek Rremoval and Modification of Barriers #3 and #4
	HS	Santa Ynez Bank & Riparian
Santa Cruz	HB	Browns Valley Road PM 3.3
Siskiyou	HS	East Fork Scott River Bank Stabilization & Riparian
	SC	Farmers Ditch Diversion Improve
	HS	Hanna Brothers Bank Stabilization
	SC	Horse Creek Fish Passage
	HR	Marion Ranch Riparian Fence
	HS	Moffett Creek/Kraus Bank Stabilization and Riparian Project
	HR	Nelson Livestock Fence
	HR	Root Ranch Riparian Fence
	HS	Scott River Tailings Stabilization
	HB	Shackleford Creek Diversion
	HR	Shasta River Joe Rice Fencing
	SC	Stapleton Fish Screen Project
Sonoma	HS	Adobe Creek Restoration Project
	HI	Calabazas Creek Pool Enhancement Modifications
	HR	Dutch Bill Coho Habitat Improvement
	HS	Green Valley Enhancement II
	HB	Green Valley-Grub Creeks Retrofit
	HI	Middle Wine Creek Habitat Improvement- Schlumberge
	HS	Osmosis Bank Stabilization
	HI	Pena Creek Instream Restoration at Tevendale 2004
	HI	Redwood Cr. - Beringer 2004 Adaptive Watershed Project
	HI	Redwood Cr. - Beringer Adaptive Watershed Project
	HS	Salmon Creek Mackie II
	HS	Salmon Creek School Bank Stabilization
	HS	Sonoma Creek Stream Bank Stabilization & Pool Enhancement
	HS	Stuhmuller Bioengineering
	HU	Upper Mark West Creek Sediment Reduction Project
	HU	Willow Creek Phase 2
Trinity	WC	West Tule Water Conservation Project
Ventura	HS	Lion Creek Bank Stabilization Project

APPENDIX B
MITIGATION MEASURES, MONITORING AND REPORTING PROGRAM FOR THE 2005 FISHERIES RESTORATION GRANT PROGRAM

MITIGATION

I. AESTHETICS

No specific mitigation measures are required to protect aesthetics.

II. AGRICULTURE RESOURCES

No specific mitigation measures are required to protect agricultural resources.

III. AIR QUALITY

No specific mitigation measures are required to protect air quality.

IV. BIOLOGICAL RESOURCES

General Measures for Protection of Biological Resources

1) Timing. To avoid impacts to aquatic habitat the activities carried out in the restoration program typically occur during the summer dry season.

   a) Work around streams is restricted to the period of June 15 through November 1 or the first rainfall. This is to take advantage of low stream flow and avoid the spawning and egg/alevin incubation period of salmon and steelhead.

   b) Upslope work generally occurs during the same period as stream work. Road decommissioning and other sediment reduction activities are dependent on soil moisture content. Upslope projects do not have seasonal restrictions in the Incidental Take Statement but work may be restricted at some sites to allow soils to dry out adequately. In some areas equipment access and effectiveness is constrained by wet conditions.

   c) The permissible work window for individual work sites will be further constrained as necessary to avoid the nesting or breeding seasons of birds and terrestrial animals. At most sites with potential for raptor (including northern spotted owls) and migratory bird nesting, if work is conditioned to start after July 31, potential impacts will be avoided and no surveys will be required. For work sites that might contain nesting marbled murrelets, the starting date will be September 15 in the absence of surveys. The work window at individual work sites could be advanced if surveys determine that nesting birds will not be impacted.

d) For restoration work that could affect swallow nesting habitat (such as removal of culverts showing evidence of past swallow nesting), construction will occur after August 31 to avoid the swallow nesting period. Alternatively, the suitable bridge nesting habitat will be netted before initiation of the breeding season to prevent nesting. Netting must be installed before any nesting activity begins, generally prior to March 1. Swallows must be excluded from areas where construction activities cause nest damage or abandonment.

e) Planting of seedlings shall begin after December 1, or when sufficient rainfall has occurred to ensure the best chance of survival of the seedlings, but in no case after April 1.

2) During all activities at project work sites, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

3) Staging/storage areas for equipment, materials, fuels, lubricants, and solvents, will be located outside of the stream's high water channel and associated riparian area. Stationary equipment such as motors, pumps, generators, compressors, and welders located within the dry portion of the stream channel or adjacent to the stream, will be positioned over drip-pans. Vehicles will be moved out of the normal high water area of the stream prior to refueling and lubricating. The contractor shall ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, DFG shall ensure that the contractor has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

4) The contractor shall ensure that the spread or introduction of invasive exotic plants shall be avoided to the maximum extent possible. When practicable, invasive exotic plants at the work site shall be removed.

5) The number of access routes, number and size of staging areas, and the total area of the work site activity shall be limited to the minimum necessary to complete the restoration action.

6) Any equipment work within the stream channel shall be performed in isolation from the flowing stream. If there is any flow when the work is done, the contractor shall construct coffer dams upstream and downstream of the excavation site and divert all flow from upstream of the upstream dam to downstream of the downstream dam. The coffer dams may be constructed with clean river gravel or sand bags, and may be sealed with sheet plastic.

Sand bags and any sheet plastic shall be removed from the stream upon project completion. Clean river gravel may be left in the stream, but the coffer dams must be breached to return the stream flow to its natural channel.

7) For minor actions, where the disturbance to construct coffer dams to isolate the work site would be greater than to complete the action (for example, placement of a single boulder cluster), then measures will be put in place immediately downstream of the work site to capture suspended sediment. This may include installation of silt catchment fences across the stream, or placement of a filter berm of clean river gravel. Silt fences and other non-native materials will be removed from the stream following completion of the activity. Gravel berms may be left in place after breaching, provided they do not impede the stream flow.

8) Any equipment entering the active stream (for example, in the process of installing a coffer dam) shall be preceded by an individual on foot to displace wildlife and prevent them from being crushed.

9) If any wildlife is encountered during the course of construction, said wildlife shall be allowed to leave the construction area unharmed, and shall be flushed, hazed, or herded in a safe direction away from the project site.

10) Any red tree vole nests encountered at a work site will be flagged and avoided during construction.

11) For any work sites containing western pond turtles, foothill yellow-legged frogs or tailed frogs, the contractor shall provide to the DFG contract manager for review and approval, a list of the exclusion measures that will be used at their work site to prevent take or injury to any individual pond turtles or frogs that could occur on the site. The contractor shall ensure that the approved exclusion measures are in place prior to construction. Any turtles or frogs found within the exclusion zone shall be moved to a safe location upstream or downstream of the work site, prior to construction.

12) All habitat improvements shall be done in accordance with techniques in the *California Salmonid Stream Habitat Restoration Manual*. The most current version of the manual is available at: http://www.dfg.ca.gov/habitats.

Specific Measures for Endangered, Rare, or Threatened Species That Could Occur at Specific Work Sites

Rare Plants

The work sites for the 2005 grants projects are within the range of a variety of rare plant species. The plant species found on a State or Federal special status list that might be associated with the 2005 grants projects, was determined from a search of DFG's Natural Diversity Database. Because of the large number of widely scattered work sites proposed, it is not feasible to survey individual work sites in advance and still be able to implement the restoration projects, due to time limits on the availability of restoration funds. Lists of special status plant species that might occur at individual work sites are presented in Appendix A. Past experience with grants projects from previous years has shown that the potential for adverse impacts on rare plants at salmonid restoration work sites is very low. Few sites surveyed for rare plants between 1999 and 2004 were found to have rare plant colonies; disturbance of rare plants was avoided in all cases. In order to avoid impacts to rare plants during the 2005 grants projects, the following mitigation measures will be implemented:

1) DFG will survey all work sites for rare plants prior to any ground disturbing activities. Rare plant surveys will be conducted following the "Guidelines for Assessing the Effects of Proposed Developments on Rare and Endangered Plants and Plant Communities" (DFG, 2000). These guidelines are available on the web at: http://www.dfg.ca.gov/hcpb/species/stds_gdl/survmonitr.shtml.

2) If any special status plant species are identified at a work site, DFG will require one or more of the following protective measures to be implemented before work can proceed:

   a) Fencing to prevent accidental disturbance of rare plants during construction,

   b) On-site monitoring by a qualified biologist during construction to assure that rare plants are not disturbed, and

   c) Redesign of proposed work to avoid disturbance of rare plants.

3) If it becomes impossible to implement the project at a work site without potentially significant impacts to rare plants, then activity at that work site will be discontinued.

4) DFG shall ensure that the contractor or responsible party is aware of these site-specific conditions, and will inspect the work site before, during, and after completion of the action item.

California freshwater shrimp (*Syncaris pacifica*)

Of the 111 work sites proposed as part of the 2005 grants program, 19 occur within the range of California freshwater shrimp (CFS) (Redwood Cr. Sediment Control -Mt. Tamalpais State Park Kent Canyon and Deer Park Roads, Dry Creek Bank Stabilization Project #1, Rutherford Dust Society Arundo Removal, Adobe Cr. Restoration Project, Calabazas Cr. Pool Enhancement Modifications, Dutch Bill Creek Coho Habitat Improvement, Green Valley Cr. Coho Enhancement II, Green Valley-Grub Cr. Culvert Retrofits, Middle Wine Cr. Habitat Improvement-Schlumberge, Osmosis Bank Stabilization, Pena Cr. Instream Restoration at Tevendale 2004, Redwood Cr.-Beringer 2004, Redwood Creek Cr. 2005 Beringer Adaptive Watershed Project, Salmon Cr. Mackie II, Salmon Cr. School Bank Stabilization, Sonoma Cr. Stream Bank Stabilization and Pool Enhancement, Stuhmuller Bioengineering, Upper Mark West Cr. Sediment Reduction, Willow Cr. Road Erosion Control Phase II) (Appendix A). The range of the CFS includes Marin, Napa, and Sonoma counties, excluding the Gualala River watershed. Thirteen of these projects (Redwood Cr. Sediment Control -Mt. Tamalpais State Park Kent Canyon and Deer Park Roads, Dry Creek Bank Stabilization Project #1, Rutherford Dust Society Arundo Removal, Adobe Cr. Restoration Project, Calabazas Cr. Pool Enhancement Modifications, Dutch Bill Creek Coho Habitat Improvement, Middle Wine Cr. Habitat Improvement-Schlumberge, Pena Cr. Instream Restoration at Tevendale 2004, Redwood Cr.-Beringer 2004, Redwood Creek Cr. 2005 Beringer Adaptive Watershed Project, Stuhmuller Bioengineering, Upper Mark West Cr. Sediment Reduction, Willow Cr. Road Erosion Control Phase II) have no potential to impact CFS because they involve no instream work and/or no known occurrences have been identified within the watersheds. Based on the nature of the habitat at the other 6 sites, and their location in their watersheds, it is possible that CFS could occur at those sites. Therefore, the potential for impacts to CFS will be mitigated by complying with all of the mandatory terms and conditions associated with incidental take authorized by the U. S. Fish and Wildlife Service, Biological Opinion dated August 17, 2004. DFG proposes to implement the following measures to minimize adverse effects to the CFS and its habitat:

Where appropriate, a Service-approved DFG biologist will survey each site for shrimp before allowing work to proceed and prior to issuance of a Streambed Alteration Agreement. All overhanging vegetation, undercut banks, and tree roots will be surveyed with a butterfly net or fish net. In site locations where shrimp are present, DFG will require the contractor to implement the mitigation measures listed:

1) Equipment work will be performed only in riffle, shallow run, or dry habitats, avoiding low velocity pool and run habitats occupied by shrimp, unless shrimp are relocated according to the protocol described below. "Shallow" run habitat is defined as a run with a maximum water depth, at any point, less

than 12 inches, and without undercut banks or vegetation overhanging into the water.

2) Hand placement of logs or rocks will be permitted in pool or run habitat in stream reaches where shrimp are known to be present only if the placement will not adversely affect shrimp or their habitat.

3) Care shall be taken during placement or movement of materials in the stream to prevent any damage to undercut stream banks and to minimize damage to any streamside vegetation. Streamside vegetation overhanging into pools or runs shall not be modified.

4) No log or rock weirs (including vortex rock weirs), or check dams shall be constructed that would span the full width of the low flow stream channel. Vegetation shall be incorporated with any structures involving rocks or logs to enhance migration potential for shrimp.

5) DFG must be notified at least one week in advance of the date on which work will start in the stream, so that a qualified DFG biologist can monitor activities at the work site. All work in the stream shall be stopped immediately if it is determined by DFG that the work has the potential to adversely impact on the shrimp or its habitat. Work shall not recommence until DFG is satisfied that there will be no impact on the shrimp.

6) At least 15 days prior to the onset of activities, DFG will submit the name(s) and credentials of biologists who will conduct activities specified in the following measures. The contractor will implement any additional conservation measures requested by DFG and/or the Service.

7) If in the opinion of the Service-approved biologist, adverse affects to shrimp would be further minimized by moving shrimp away from the project site, the following procedure shall be used:

   a) A second survey will be conducted within 24 hours of any construction activity and relocated. Shrimp will be moved while in the net, or placed in buckets containing stream water and then moved directly to the nearest suitable habitat. Stress and temperature monitoring of shrimp shall be performed by the Service-approved biologist. Numbers of shrimp and any mortalities or injuries must be identified and recorded. Shrimp habitat is defined as reaches in low elevation (less than 116m) and low gradient (less than 1 percent) streams where banks are structurally diverse with undercut banks, exposed fine root systems, overhanging woody debris or overhanging vegetation.

b) When no other habitat exists on a landowner's property, the shrimp shall be held in suitable containers with site water and released at the end of the day. Containers shall be placed in the shade.

c) Only Service-approved biologists shall participate in the capture, handling, and monitoring of shrimp. DFG will report annually on the number of capture, release and injuries/mortality and agrees to modify capture/release strategy with Service staff as needed to prevent adverse effects.

d) If moving the shrimp out of the work area cannot be accomplished, and other avoidance measures have been deemed inappropriate, the DFG will drop activities at the work site from the project.

e) Before any construction activities begin at a work site that may contain shrimp, the Service-approved DFG biologist shall conduct a training session for all construction personnel. At a minimum the training shall include a description of the shrimp and its habitat, the importance of the shrimp and its habitat, the general measures that are being implemented to conserve the shrimp as they relate to the work site, and the work site boundaries where construction may occur.

8) At any work site that may contain shrimp, all fueling and maintenance of vehicles, other equipment and staging areas shall occur at least 65 feet from any riparian habitat or water body. The contractor shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, DFG shall ensure that the contractor has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

9) A Service-approved DFG biologist shall be present at the work site until such time as all removal of shrimp, instruction of workers, and habitat disturbance associated with the restoration project have been completed. The Service-approved biologist shall have the authority to halt any action that might result in the loss of any shrimp or its habitat. If work is stopped, the Service-approved biologist shall immediately notify DFG and the Service.

10) Ground disturbing activities in potential shrimp habitat shall be restricted to the period between July 1 and November 1.

11) If a work site is temporarily dewatered by pumping, intakes shall be completely screened with wire mesh no larger than 0.2 inch to prevent shrimp from entering the pump system. Water shall be released or pumped downstream, at an appropriate rate, to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow

shall be removed in a manner that would allow flow with the least disturbance to the substrate.

12) Service-approved biologist shall permanently remove from within the project work site, any individuals of exotic species, such as bullfrogs, centrarchid fishes, and non-native crayfish, to the maximum extent possible. The contractor shall have the responsibility that such removals are done in compliance with the California Department of Fish and Game Code.

13) Invasive non-native vegetation that provides shrimp habitat and is removed as a result of Program activities shall be replaced with native vegetation that provides comparable habitat for the shrimp. Revegetated sites shall be irrigated as necessary until vegetation is established. Revegetated sites shall be monitored until shading and cover achieves 80 % of pre-project shading and cover and for a minimum of 5 years.

14) No dumping of dead trees, yard waste or brush shall occur in shrimp streams, which may result in oxygen depletion of aquatic systems.

Coho salmon (*Oncorhynchus kisutch*), Chinook salmon (*Oncorhynchus tshawytscha*), Steelhead (*Oncorhynchus mykiss*), and Coast cutthroat trout (*Oncorhynchus clarki clarki*)

While all of the work proposed under this program will enhance habitat for one or more of these species, 96 of the 111 work sites proposed as part of the 2004 grants program will involve instream work in their habitat (Appendix A). In order to avoid any potential for negative impacts to these species the following measures will be implemented:

1) Project work within the wetted stream shall be limited to the period between June 15 and November 1, or the first significant fall rainfall. This is to take advantage of low stream flows and to avoid the spawning and egg/alevin incubation period of salmon and steelhead. Whenever possible, the work period at individual sites shall be further limited to entirely avoid periods when salmonids are present (for example, in a seasonal creek, work will be confined to the period when the stream is dry).

2) No heavy equipment shall operate in the live stream, except as may be necessary to construct coffer dams to divert stream flow and isolate the work site.

3) Work must be performed in isolation from the flowing stream. If there is any flow when the work is done, the operator shall construct coffer dams upstream and downstream of the excavation site and divert all flow from upstream of the upstream dam to downstream of the downstream dam. The coffer dams may be constructed with clean river gravel or sand bags, and

may be sealed with sheet plastic. Sand bags and any sheet plastic shall be removed from the stream upon project completion. Clean river gravel may be left in the stream, but the coffer dams must be breached to return the stream flow to its natural channel.

4) For minor actions, where the disturbance to construct coffer dams to isolate the work site would be greater than to complete the action (for example, placement of a single boulder cluster), measures will be put in place immediately downstream of the work site to capture suspended sediment. This may include installation of silt catchment fences across the stream, or placement of a filter berm of clean river gravel. Silt fences and other non-native materials will be removed from the stream following completion of the activity. Gravel berms may be left in place after breaching, provided they do not impede the stream flow.

5) If it is necessary to divert flow around the work site, either by pump or by gravity flow, the suction end of the intake pipe shall be fitted with fish screens meeting DFG and NMFS criteria to prevent entrainment or impingement of small fish. Any turbid water pumped from the work site itself to maintain it in a dewatered state shall be disposed of in an upland location where it will not drain directly into any stream channel.

6) Any disturbed banks shall be fully restored upon completion of construction. Revegetation shall be done using native species. Planting techniques can include seed casting, hydroseeding, or live planting methods using the techniques in Part XI of the *California Salmonid Stream Habitat Restoration Manual*.

7) Suitable large woody debris removed from fish passage barriers that is not used for habitat enhancement, shall be left within the riparian zone so as to provide a source for future recruitment of wood into the stream.

8) Measures shall be taken to minimize harm and mortality to listed salmonids resulting from fish relocation and dewatering activities:

   a) Fish relocation and dewatering activities shall only occur between June 15 and November 1 of each year.

   b) DFG shall minimize the amount of wetted stream channel that is dewatered at each individual project site to the fullest extent possible.

   c) All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service *Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act*, June 2000.

9) If for some reason these mitigation measures cannot be implemented, or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to anadromous salmonids or their habitat, then activity at that work site will be discontinued.

California red-legged frog (*Rana aurora draytonii*)

Twelve of the work sites proposed as part of the 2005 grants program are within potential habitat for the California red-legged frogs (CRLF) (Appendix A). Activities proposed for the 12 sites (Dry Cr. Bank Project #1, Rutherford Dust Society Arundo Removal, Walters Cr. Riparian Phase II, Bear Gulch Watershed Plan, Arroyo Hondo Culvert Project, Gaviota State Park Roads Repair, Gobernador Cr. Removal and Modification of Barriers 3 &4, Santa Ynez Bank & Riparian, Calabazas Cr. Pool Enhancement Modifications, Salmon Cr. Mackie II, Sonoma Cr. Stream Bank Stabilization & Pool Enhancement, Lion Cr. Bank Stabilization Project) will not remove or degrade CRLF habitat; however, precautions will be required at this site to avoid the potential for take of CRLF while using heavy equipment at these sites. The potential for impacts to CRLF will be mitigated by complying with all of the mandatory terms and conditions associated with incidental take authorized by the U. S. Fish and Wildlife Service, Biological Opinion dated August 17, 2004 and August 13, 2004. DFG proposes to implement the following measures to minimize adverse effects to the CRLF and its habitat:

1) At least 15 days prior to the onset of activities, the DFG will submit the names(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities will begin until the DFG has received written approval from the Service that the biologist(s) is qualified to conduct the work.

2) A Service-approved biologist will survey the work site at least two weeks before the onset of activities. If red-legged frogs are found in the project area and these individuals are likely to be killed or injured by work activities, the Service-approved biologist will allow sufficient time to move them from the site before work activities resume. Only Service-approved biologists will participate in activities with the capture, handling, and monitoring of red-legged frogs.

3) Before any construction activities begin on a project, a Service-approved biologist will conduct a training session for all construction personnel. At a minimum, the training shall include a description of the red-legged frog and its habitat, the importance of the red-legged frog and its habitat, the general measures that are being implemented to conserve the red-legged frog as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

4) A Service-approved biologist shall be present at the work site until such time as removal of red-legged frogs, instruction of workers, and habitat disturbance has been completed. The Service-approved biologist shall have the authority to halt any action that might result in impacts that exceed the

levels anticipated by the Corps and Service during review of the proposed action. If work is stopped, the Corps and the Service shall be notified immediately by the Service-approved biologist or on-site biological monitor.

5) During project activities, all trash that may attract predators will be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas.

6) All fueling and maintenance of vehicles and other equipment and staging areas will occur at least 65 feet from any riparian habitat or water body. The Corps and the DFG will ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the DFG will ensure that the contractor has prepared a plan to allow a prompt and effective response to any accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

7) A Service-approved biologist will ensure that the spread or introduction of invasive exotic plant species is avoided to the maximum extent possible. Areas disturbed by project activities will be restored and planted with native plants.

8) The number of access routes, number and size of staging areas, and the total area of the activity will be limited to the minimum necessary to achieve the project goal. Routes and boundaries will be clearly demarcated.

9) Ground disturbing activities in potential red-legged frog habitat will be restricted to the period between July 1 and October 15.

10) To control erosion during and after project implementation, DFG will implement best management practices, as identified by the appropriate Regional Water Quality Control Board.

11) If a work site is to be temporarily dewatered by pumping, intakes will be completely screened with wire mesh not larger than 0.2 inch to prevent red-legged frogs from entering the pump system. Water will be released or pumped downstream at an appropriate rate to maintain down stream flows during construction activities and reduce the creation of ponded water. Upon completion of construction activities, any barriers to flow will be removed in a manner that would allow flow to resume with the lease disturbance to the substrate.

12) A Service-approved biologist will permanently remove from the project area, any individuals of exotic species, such as bullfrogs (*Rana catesbiana),* centrarchid fishes, and non-native crayfish to the maximum extent possible.

The biologist will have the responsibility to ensure that their activities are in compliance with the Fish and Game Code.

13) Prior to the onset of any project-related activities, the approved biologist must identify appropriate areas to receive red-legged frog adults and tadpoles from the project areas. These areas must be in proximity to the capture site, contain suitable habitat, not be affected by project activities, and be free of exotic predatory species (ie., bullfrogs, crayfish) to the best of the approved biologist's knowledge.

14) If red-legged frogs are found and these individuals are likely to be killed or injured by work activities, the Service-approved biologists must be allowed sufficient time to move them from the site before work activities resume. The Service-approved biologist must relocate the red-legged frogs the shortest distance possible to one of the predetermined areas. The Service-approved biologist must maintain detailed records of any individuals that are moved (eg., size, coloration, any distinguishing features, photographs (digital preferred) to assist in determining whether translocated animals are returning to the point of capture. Only red-legged frogs that are at risk of injury or death by project activities may be moved.

15) Biologists who handle red-legged frogs must ensure that their activities do not transmit diseases. To ensure that diseases are not conveyed between work sites by the Service-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force must be followed at all times.

Least Bell's Vireo (*Vireo bellii pusillus*)

Of the 111 work sites proposed as part of the 2004 grants program, none could potentially affect suitable habitat for the Least Bell's Vireo (Appendix A). None of the activities proposed for these sites will significantly degrade existing vireo habitat, but the potential exists for the noise from heavy equipment work and the harvesting of willow branches for revegetation at these sites to disrupt vireo nesting. To avoid this potential impact, the following mitigation measures will be implemented:

1) Work shall not begin within one quarter mile of any site with known or potential habitat for the Least Bell's Vireo until after September 15.

2) Harvest of willow branches at any site with potential habitat for the Least Bell's Vireo will not occur between March 1 and September 15.

3) The work window at individual work sites may be modified, if protocol surveys determine that nesting birds do not occur within 0.25 miles of the site during the breeding season.

4) The DFG shall ensure that the contractor or responsible party is aware of this site-specific condition, and will inspect the work site before, during, and after completion of the action item.

5) If for some reason these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to Least Bell's Vireo or their habitat, then activity at that work site will be discontinued.

Marbled murrelet (*Brachyrampus marmoratus*)

The marbled murrelet is listed as endangered under CESA and threatened under ESA. Activities to protect and restore habitat will not remove or degrade suitable habitat for marbled murrelets, however nesting birds could be disturbed by the noise from heavy equipment required for projects such as culvert removal or placement of large woody debris.

Of the 111 work sites proposed as part of the 2005 grants program, 16 are in potentially suitable habitat for the marbled murrelet (Bummer Spurs Watershed Rehabilitation, Lower Terwer Cr. Riparian Restoration, Mynot Cr. Instream Habitat Restoration, Salt Cr. Riparian Habitat Enhancement, Wilson Cr. Instream Habitat Enhancement, Yonkers Cr. Fish Passage Barrier Removal, Chadd Cr. 101 Culvert Passage, Maple Creek Cover Enhancement, Mid-Mattole Coho Recovery, Paine Riparian, Redwood Creek Road O-3 PCFWWRA/319, Rex's Wing Dam Phase III, YES Group Water Board Roads Project, Wilson Creek Crossing, Usal Cr. Channel Restoration, Bear Gulch Watershed Plan) (Appendix A). None of the activities proposed for these sites will remove, degrade, or downgrade suitable marbled murrelet habitat. Direct injury or mortality is not an issue. The potential exists for noise from heavy equipment work at these sites to disrupt marbled murrelet nesting. To avoid this potential impact, the following mitigation measures will be implemented:

1) Adverse effects can be avoided by limiting heavy equipment work within 0.25 mile of marbled murrelet habitat to the period between September 16 and March 23.

2) Work shall not begin within 0.25 mile of any site with occupied or un-surveyed suitable marbled murrelet habitat between March 24 and September 15.

3) The work window at individual work sites near suitable habitat may be modified, if protocol surveys determine that habitat quality is low and occupancy is very unlikely.

4) If for some reason these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential adverse effects to marbled murrelet or their habitat, then activity at that work site will be discontinued.

Northern spotted owl (*Strix occidentalis caurina*)

The northern spotted owl is listed as threatened under ESA. Restoration activities should not alter habitat for northern spotted owls, however nesting birds could be disturbed by the noise from heavy equipment during projects such as culvert removal or placement of large woody debris. Disturbance can be avoided by limiting heavy equipment work within 0.25 miles of suitable spotted owl habitat to the period between August 1 and January 31.

Of the 111 work sites proposed as part of the 2005 grants program, 40 are in potentially suitable habitat for the northern spotted owl (Appendix A). None of the activities will remove, degrade or downgrade spotted owl habitat. Direct injury or mortality of owls is not an issue. The potential exists for heavy equipment work at these sites to disturb spotted owl nesting. To avoid this potential effect, the following mitigation measures will be implemented:

1) Work at any site within 0.25 miles of suitable habitat for the northern spotted owl will not occur from February 1 to July 31.

2) The work window at individual work sites may be advanced prior to July 31, if protocol surveys determine that suitable habitat is unoccupied.

3) If for some reason these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to northern spotted owls or their habitat, then activity at that work site will be discontinued and CDFG will reinitiate consultation with FWS.

Willow flycatcher (*Empidonax traillii*),

Of the 111 work sites proposed as part of the 2005 grants program, 2 could potentially affect suitable habitat for the willow flycatcher by the harvesting of willow branches for riparian planting and construction of live willow mattresses and live willow walls (Salmon Creek Watershed Stream Bank Stabilization and Habitat Restoration, Santa Ynez River Bank and Riparian Restoration) (Appendix A). None of the activities proposed for these sites will significantly degrade existing willow flycatcher habitat, but the potential exists for the noise from heavy equipment work or harvesting of revegetation material at these sites to disrupt willow flycatcher nesting. To avoid this potential impact, the following mitigation measures will be implemented:

1) Heavy equipment work shall not begin within one quarter mile of any site with known or potential habitat for the willow flycatcher until after August 31. Heavy equipment work shall not begin within one quarter mile of any site with known or potential habitat for the southwestern willow flycatcher until after September 15.

2) Harvest of willow branches at any site with potential habitat for the willow flycatcher will not occur between May 1 and August 31. Harvest of willow branches at any site with potential habitat for the southwestern willow flycatcher will not occur between May 1 and September 15.

3) The work window at individual work sites may be modified, if protocol surveys determine that nesting birds do not occur within 0.25 miles of the site during the breeding season.

4) No more than 1/3 of any willow plant shall be harvested annually. Care shall be taken during harvest not to trample or over harvest the willow sources.

5) DFG shall ensure that the contractor or responsible party is aware of this site-specific condition, and will inspect the work site before, during, and after completion of the action item.

6) If for some reason these mitigation measures cannot be implemented or the project actions proposed at a specific work site cannot be modified to prevent or avoid potential impacts to willow flycatcher or their habitat, then activity at that work site will be discontinued.

Point Arena mountain beaver (*Aplodontia rufa nigra*)

Of the 111 projects proposed as part of the 2005 grants program, none occur within the range of the Point Arena mountain beaver (PAMB) (Appendix A). Of those projects, 111 have no potential to adversely affect PAMB because no work will occur in any habitat used by PAMB. To avoid potential impacts to PAMB from these projects, the following mitigation measures will be implemented:

1) Qualified DFG personnel will survey each work site for PAMB. Qualification of surveyors, survey protocols, and reporting will conform to USFWS's *Draft Guidelines for Project-Related Habitat Assessments and Surveys for Point Arena Mountain Beaver*. Per the *Guidelines*, if the activity status of a burrow is in doubt, or if there is un-surveyed potential habitat, PAMB active presence will be assumed.

2) For work sites where PAMB active presence is confirmed or assumed, all protective measures prescribed by USFWS's *Draft Point Arena Mountain Beaver Standard Protection Measures for No-Take Determinations* will be

followed, through issuance of a Streambed Alteration Agreement and/or directives to the contractor by the DFG Contract Manager. The protective measures most pertinent to DFG salmonid habitat improvement projects include:

a) No operation of noise generating equipment (e.g. chainsaws) within 100 feet of active burrows during the breeding season (December 15 – June 30).

b) No operation of mechanical equipment (e.g backhoes, excavators) within 100 feet of active burrows during the breeding season (December 15 – June 30), and within 50 feet the remainder of the year.

c) No ground disturbance (e.g. dumping of boulders) within 500 feet of active burrows during breeding season, and within 100 feet the remainder of the year. No severe ground disturbance (e.g. driving of bridge piles, blasting) within 500 feet of active burrows at any time.

d) No habitat modification (e.g. vegetation removal) within 400 feet of active burrows.

e) No vegetation modification or removal, or construction of permanent barriers (e.g. fences) at any location or time that may disrupt dispersal or movement of PAMB.

f) No vehicular or foot traffic within 25 feet of active burrows, and no alteration of water drainage or hydrology in active burrow areas.

3) DFG will require that the Contract Manager must be notified at least one week in advance of the date on which work will start, so that a qualified DFG biologist can monitor activities at the work site. If the necessary protective measures cannot be implemented at a work site, then no work at the site will occur.

V. CULTURAL RESOURCES

Ground-disturbance will be required to implement the project at some work sites that have the potential to affect cultural resources. This potential impact will be avoided through implementation of the following mitigation measures:

1) DFG will contract with a qualified archaeologist(s) to complete cultural resource surveys at any sites with the potential to be impacted prior to any ground-disturbing activities. Cultural resource surveys will be conducted using standard protocols.

2) If cultural resource sites are identified at a site, DFG will require one or more of the following protective measures to be implemented before work can proceed: a) Fencing to prevent accidental disturbance of cultural resources during construction, b) on-site monitoring by a cultural resource professional during construction to assure that cultural resources are not disturbed, c) redesign of proposed work to avoid disturbance of cultural resources.

3) DFG shall report any previously unknown historic or archeological remains discovered at a site to the U. S. Army Corps of Engineers as required in the Regional General Permit.

4) If it becomes impossible to implement the project at a work site without disturbing cultural resources, then activity at that work site will be discontinued.

5) DFG shall ensure that the contractor or responsible party is aware of these site-specific conditions, and will inspect the work site before, during, and after completion of the action item.

VI. GEOLOGY AND SOILS

There is no potential for a significant adverse impact to geology and soils; implementation of the restoration project will contribute to an overall reduction in erosion and sedimentation. Existing roads will be used to access work sites. Ground disturbance at most work sites will be minimal, except for road improvements or decommissioning. Road improvements and decommissioning will involve moving large quantities of soil from road fills and stream crossings to restore historic land surface profiles and prevent chronic erosion and sediment delivery to streams. In order to avoid temporary increases in surface erosion, the following mitigation measures will be implemented:

1) DFG will implement the following measures to minimize harm to listed salmonids resulting from culvert replacement activities and other instream construction work:

   a) All stream crossing replacement or modification designs, involving fish passage, must be visually reviewed and authorized by NOAA Fisheries (or DFG) engineers prior to commencement of work.

   b) If the stream in the project location was not passable to, or was not utilized by all life stages of, all covered salmonids prior to the existence of the road crossing, the project shall pass the life stages and covered salmonid species that historically did pass there. Retrofit culverts shall meet the fish passage criteria for the passage needs of the listed species and life stages historically passing through the site prior to the existence of the road crossing.

c) Effective erosion control measures shall be in-place at all times during construction. Construction within the 5-year flood plain will not begin until all temporary erosion controls (eg., straw bales or silt fences that are effectively keyed-in) are in-place down slope of project activities within the riparian area. Erosion control measures shall be maintained throughout the construction period. If continued erosion is likely to occur after construction is completed, then appropriate erosion prevention measures shall be implemented and maintained until erosion has subsided.

d) Sediment shall be removed from sediment controls once it has reached one-third of the exposed height of the control. Whenever straw bales are used, they shall be staked and dug into the ground 6 inches. Catch basins shall be maintained so that no more than 6 inches of sediment depth accumulates within traps or sumps.

e) Sediment-laden water created by construction activity shall be filtered before it leaves the right-of-way or enters the stream network or an aquatic resource area. Silt fences or other detention methods shall be installed as close as possible to culvert outlets to reduce the amount of sediment entering aquatic systems.

f) Upon project completion, all exposed soil present in and around the project site shall be stabilized within 7 days.

2) DFG will implement the following measures to minimize harm to listed salmonids resulting from construction in the riparian corridor:

a) Retain as many trees and brush as feasible, emphasizing shade producing and bank stabilizing trees and brush.

b) Use project designs and access points that minimize riparian disturbance without affecting less stable areas, which may increase the risk of channel instability.

c) Minimize compaction by using equipment that either has (relative to other equipment available) less pressure per square inch on the ground or a greater reach, thus resulting in less compaction or less area overall compacted or disturbed.

d) At the completion of the project, soil compaction that is not an integral element of the design of a crossing should be de-compacted.

e) Disturbed and compacted areas shall be revegetated with native plant species. The species used should be specific to the project vicinity or the region of the state where the project is located, and comprise a diverse

community structure (plantings should include both woody and herbaceous species). Plant at a ratio of two plantings to one removed plant.

f) Unless otherwise specified, the standard for success is 80 percent survival of plantings or 80 percent ground cover for broadcast planting of seed after a period of 3 years.

g) The spread or introduction of invasive exotic plants will be avoided to the maximum extent possible.

3) DFG will implement the following measures to minimize harm to listed salmonids resulting from road decommissioning activities:

a) Woody debris will be concentrated on finished slopes adjacent to stream crossings to reduce surface erosion; contribute to amounts of organic debris in the soil; encourage fungi; provide immediate cover for small terrestrial species; and to speed recovery of native forest vegetation.

b) Work sites will be winterized at the end of each day when significant rains are forecast that may cause unfinished excavations to erode. Winterization procedures shall supervised by a professional trained in erosion control techniques and involve taking necessary measures to minimize erosion on unfinished work surfaces. Winterization includes the following: smoothing unfinished surfaces to allow water to freely drain across them without concentration or ponding; compacting unfinished surfaces where concentrated runoff may flow with an excavator bucket or similar tool, to minimize surface erosion and the formation of rills; and installation of culverts, silt fences, and other erosion control devices where necessary to convey concentrated water across unfinished surfaces, and trap exposed sediment before it leave the work site.

c) Adequate erosion control supplies (gravel, straw bales, shovels, etc.) shall be kept at all restoration sites to ensure sediment is kept out of water bodies.

d) Mulching and seeding is required on all exposed soil which may deliver sediment to a stream.

VII. HAZARDS AND HAZARDOUS MATERIALS

The project will not create a significant hazard to the public or the environment. At work sites requiring the use of heavy equipment, there is a small risk of an accident upsetting the machine and releasing fuel, oil, and coolant, or of an accidental spark from equipment igniting a fire. The potential for

these impacts will be reduced to a less than significant level through implementation of the following mitigation measures:

1) The contractor shall have dependable radio or phone communication on-site to be able to report any accidents or fire that might occur.

2) Heavy equipment that will be used in these activities will be in good condition and will be inspected for leakage of coolant and petroleum products and repaired, if necessary, before work is started.

3) Work with heavy equipment will be performed in isolation from flowing water, except as may be necessary to construct coffer dams to divert stream flow and isolate the work site.

4) All equipment operators will be trained in the procedures to be taken should an accident occur. Prior to the onset of work, DFG shall ensure that the contractor has prepared a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

5) All activities performed in or near a stream will have absorbent materials designed for spill containment and cleanup at the activity site for use in case of an accidental spill.

6) All fueling and maintenance of vehicles and other equipment shall be located at least 20 meters from any riparian habitat or water body. The contractor shall ensure contamination of habitat does not occur during such operations.

7) Location of staging/storage areas for equipment, materials, fuels, lubricants, and solvents, will be located outside of the stream's high water channel and associated riparian area. The number of access routes, number and size of staging areas, and the total area of the work site activity shall be limited to the minimum necessary to complete the restoration action. To avoid contamination of habitat during restoration activities, trash will be contained, removed and disposed of throughout the project.

8) Stationary equipment such as motors, pumps, generators, compressors, and welders, located within the dry portion of the stream channel or adjacent to the stream, will be positioned over drip-pans.

9) All internal combustion engines shall be fitted with spark arrestors.

10) The contractor shall have an appropriate fire extinguisher(s) and fire fighting tools (shovel and axe at a minimum) present at all times when there is a risk of fire.

11) Vehicles shall not be parked in tall grass or any other location where heat from the exhaust system could ignite a fire.

12) The contractor shall follow any additional rules the landowner has for fire prevention.

The potential for mercury contamination is largely predicted by the presence of historic hydraulic gold mines and mercury (cinnabar) mines (California's Abandoned Mines: A Report on the Magnitude and Scope of the Issue in the State, DOC 2000). Therefore, only a few limited areas within the geographic scope of this grant program have any potential for gravels contaminated with elemental mercury, they are: Middle Klamath River, Salmon River, Scott River, and the Lower Middle and Upper Trinity River. (Though studies by the USGS failed to find significant levels of methyl mercury near these mines.) The only other mercury mine contamination within the FRGP-area is in Marin County (Walker Creek), and this contamination is not in instream gravels or dredger tailings, instead it is from the bedrock; and therefore, not easily methylized, and not as bio-available.

Given the limited geographical potential for encountering mercury contamination (from historic mining) within the geographic scope, and the limited number of projects within these areas that will either disturb the channel bottom or import gravels for instream restoration; the following avoidance and mitigation measures will be adhered to:

1) Any gravel imported from offsite will be from a source known to not contain historic hydraulic gold mine tailings, dredger tailings, or mercury mine waste or tailings.

2) For work which will disturb the channel bottom (grading and channel dredging) in areas that had historic hydraulic gold mining, or historic mercury mining (as outlined above), pre and post-project testing of macro invertebrate will be done. This testing will consist of:

   a) Prior to project implementation, a mercury bio-assessment of macro-invertebrates expressed as total mercury in mg/g of macro-invertebrates tissue will be done. Macro-invertebrate samples will be collected directly upstream and downstream of the project site, in accordance with methods described in the December 2003 *California Stream Bio-assessment Procedure* and May 7, 2003 laboratory protocol entitled *Mercury in Tissue* (FIMS Mercury Rev. 3).

   b) The results of the pre-project mercury bio-assessment will be reported to the appropriate RWQCB(s) at least 30 days prior to project initiation. If mercury is detected, the project may proceed only with RWQCB concurrence. If the Executive Officer has not disapproved the project

within 30 days of receipt of DFG's report, the project may proceed under this certification.

c) Immediately following implementation of the project, and for one additional season thereafter (ie., two sampling events), complementary mercury bio-assessment of macro-invertebrates (total mercury/mg) will be done directly upstream and downstream of the project site. The results of the post-project monitoring will be reported in DFG's Annual Reports.

VIII. HYDROLOGY AND WATER QUALITY

1) Work shall be conducted during the period of lowest flow.

2) Work shall be performed in isolation from flowing water. If there is any flow when the work is done, the contractor shall construct coffer dams upstream and downstream of the excavation site and divert all flow from upstream of the upstream dam to downstream of the downstream dam. The coffer dams may be constructed with clean river gravel or sand bags, and may be sealed with sheet plastic. Sand bags and any sheet plastic shall be removed from the stream upon project completion. Clean river gravel may be left in the stream, but the coffer dams must be breached to return the stream flow to its natural channel.

3) For minor actions, where the disturbance to construct coffer dams to isolate the work site would be greater than to complete the action (for example, placement of a single boulder cluster), then measures will be put in place immediately downstream of the work site to capture suspended sediment. This may include installation of silt catchment fences across the stream, or placement of filter berm of clean river gravel. Silt fences and other non-native materials will be removed from the stream following completion of the activity. Gravel berms may be left in place after breaching, provided they do not impede the stream flow.

4) Before work is allowed to proceed at a site, DFG will inspect the site to assure that turbidity control measures are in place.

X. MINERAL RESOURCES

No specific mitigation measures are required for mineral resources.

XI. NOISE

Personnel shall wear hearing protection while operating or working near noisy equipment (producing noise levels ≥85 db, including chain saws, excavators and back hoes).

XII. POPULATION AND HOUSING

No specific mitigation measures are required for population and housing.

XIII. PUBLIC SERVICES

No specific mitigation measures are required for public services.

XIV. RECREATION

No specific mitigation measures are required for recreation.

XV. TRANSPORTATION/TRAFFIC

The project will not affect transportation/traffic, because erosion control and culvert replacement projects will occur in wildland/rural sites with very little use. There is a potential that culvert replacement at some work sites could temporarily interfere with emergency access. This potential impact will be avoided through implementation of the following mitigation measure at any sites where emergency access might be necessary:

1) During excavation for culvert replacement, the contractor shall provide a route for traffic around or through the construction site.

XVI. UTILITIES AND SERVICE SYSTEMS

No specific mitigation measures are required for utilities and service systems.

MONITORING AND REPORTING

1) DFG Contract Manager will inspect the work site before, during, and after completion of the action item, to ensure that all necessary mitigation measures to avoid impacts are properly implemented.

2) DFG shall perform implementation monitoring on all completed restoration activities annually, as described in the *California Coastal Salmonid*

Restoration Monitoring and Evaluation Program or the latest version of the *California Salmonid Stream Habitat Restoration Manual*, Part VIII. DFG will submit a copy of the final report, no later than March 1 annually to NOAA Fisheries.

3) DFG shall perform effectiveness and validation monitoring on 10 percent annually of completed restoration projects as described in the *California Coastal Salmonid Restoration Monitoring and Evaluation Program* or the latest version of the *California Salmonid Stream Habitat Restoration Manual*, Part VIII. DFG will submit a copy of the final report, no later than March 1 annually to NOAA Fisheries.

4) An annual report shall be submitted to NOAA Fisheries by March 1 of each year, which provides a summary of all restoration action items completed during the previous year. The annual report shall include a summary of the specific type and location of each project, stratified by individual project, 4th field HUC and ESU. The report shall include the following project-specific summaries, stratified at the individual project, 4th field Huc and ESU level:

   a) A summary detailing fish relocation activities, including the number and species of fish relocated and the number and species injured or killed.

   b) The number and type of instream structures implemented within the stream channel.

   c) The length of stream bank (feet) stabilized or planted with riparian species.

   d) The number of culverts replaced or repaired, including the number of miles or restored access to unoccupied salmonid habitat.

   e) The distance (miles) of road decommissioned.

   f) The distance (feet) of aquatic habitat disturbed at each project site.

5) DFG and NOAA Fisheries staff will meet annually to coordinate on monitoring requirements. The purpose of the meeting is to facilitate prioritization of ongoing, proposed, and future monitoring efforts, and ensure these efforts meet the requirements of the biological opinion and are achievable.

6) For Alameda, Contra Costa, Lake, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties, DFG must submit an annual report due by January 31 of each year of implemented projects to the US Fish and Wildlife Service Office, 2800 Cottage Way, Sacramento, California 95825. The report must include:

a) A table documenting the number of California freshwater shrimp or red-legged frogs killed, injured, and handled during each Program project that utilizes the Corps authorization.

b) A summary of how the terms and conditions of this biological opinion and the protective measures by the Corps and DFG worked.

c) Any suggestions of how these measures could be revised to improve conservation of this species while facilitating compliance with the Act.

7) For Monterey, San Benito, San Luis Obispo, and Santa Cruz counties, DFG must submit an annual report due by January 31 of each year of implemented projects to the US Fish and Wildlife Service Office, 2493 Portola Road, Suite B, Ventura, California 93003. The report must include:

a) A table documenting the number of red-legged frogs killed, injured, and handled during each Program project that utilizes the Corps authorization.

b) A summary of how the terms and conditions of this biological opinion and the protective measures by the Corps and DFG worked.

c) Any suggestions of how these measures could be revised to improve conservation of this species while facilitating compliance with the Act.

8) DFG will submit annual reports on July 1 of each year to the 401 Program Managers of the State Water Resources Control Board and the appropriate RWQCB(s) documenting work undertaken during the preceding year and identifying for all such work the following:

a) Project name and grant number;

b) Project purpose and summary work description;

c) Name(s) of affected water body(ies);

d) Latitude/longitude in decimal degrees to at least four decimals;;

e) Type(s) of receiving water body(ies);

f) For each water body type affected, the quantity of waters of the U.S. temporarily and permanently impacted. Fill/excavation discharges shall be reported in acres and fill/excavations discharges for channels, shorelines, riparian corridors, and other linear habitat shall also be reported in linear feet;

g) Actual construction start and end-dates;

h) Whether the project is on-going or completed.

9) DFG shall report any previously unknown historic or archeological remains discovered at a site to the U. S. Army Corps of Engineers as required in the anticipated Regional General Permit.

Exhibit 2: CEQA Documentation

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Proposal Application Form

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Section 1: Summary Information

1. Applicant name: Mattole Restoration Council
2. Contact person: Chris Larson
3. Address: PO Box 160
4. City: Petrolia
5. State: CA
6. ZIP: 95558
7. Telephone number: (707) 629- 3514
8. FAX number: (707) 629- 3577
9. Email address: MRC@mattole.org

10. Type: Public Agency ☐ Nonprofit Organization ☒ Private Enterprise ☐ Indian Tribe ☐

11. OSBCR Certified Small Business? ☒
    If yes, specify the industry group and Small Business Reference Number:
    22175

12. Past contractor? ☒

13. Federal taxpayer ID: 68-0037149

14. Project type: MO

15. Project title: Upper Mattole Watershed Rehabilitation Project, Phase II Monitoring Component

16. Amount requested: $65,061

17. Total project cost: $83,989

18. Salmonid species benefited: Chinook ☒ Coho ☒ Steelhead ☒ Cutthroat ☐

19. Project summary: Mattole Restoration Council (with partners Sanctuary Forest and Mattole Salmon Group) will complete three suites of monitoring to evaluate the effectiveness of Phases I and II of the Upper Mattole Watershed Rehabilitation Project. Throughout the Mattole's headwater region, several hundred stream crossing sites and related road segments have been decommissioned or upgraded. Collection of stream channel metrics at 20 randomized reaches will provide trend data on watershed conditions. Qualitative protocols (survey and photodocumentation) from CDFG's Restoration Effectiveness Monitoring chapter will be completed at all sites. At 10 of the road decommissioning sites, Sanctuary Forest will evaluate post-treatment erosion through collection of turbidity grab samples and cavity measurements. As a whole, this suite of monitoring protocols will enable the Council to determine habitat quality and restoration effectiveness in the most critical coho refugia in the Mattole River watershed.

20. Stream: Mainstem Mattole River upstream of Shelter Cove Road, and 28 perennial streams within the Mattole Southern Subbasin.

21. Tributary to: Mattole River

22. Major drainage system: Mattole River

23. County(ies): Humboldt and Mendocino Counties

24. Within Coastal Zone? ☐ Within Trinity River basin? ☐ Within Klamath River basin? ☐

Section 2: Location Information

1. Township, Range, Section: Most of the study area is not sectioned, but falls within T4-5S, R2-3E.

2. Latitude, Longitude (in decimal degrees): 40.042° lat, 124.958° long.

3. Location description: The study area generally conforms to the Mattole watershed's Southern Sub-basin (all lands draining into the mainstem Mattole upstream of Shelter Cove Road), and the upper South Fork of Bear Creek (north of Shelter Cove Road).

4. Directions: From Highway 101, travel west on Shelter Cove Road. Turn left on the Briceland-Thorn Road, and travel approximately 5 miles to reach the center of the study area.

Section 3: Watershed Information

1. Major Drainage Name: Mattole River and headwater tributaries, South Fork Bear Creek

2. Watershed Name: Mattole River

3. Watershed area : 304 square miles

4. Watershed area included in this proposal: 34 square miles

5. Land use statement: The Upper Mattole River and Forest Cooperative manages approximately 25% of the Mattole's Southern sub-basin as a collaborative entity of state, federal, private and non-profit landowners and agencies. Such lands are managed for salmonid conservation, as they contain one-third of the old-growth forest remaining in the Mattole watershed and key spawning and rearing grounds for threatened and endangered coho, Chinook and steelhead salmonids. The remaining portion of the land is managed as private rural residential, and by the BLM King Range Conservation Area for recreation and fisheries restoration. No private residences are involved in livestock grazing. Land use is not expected to change in the next 5 years.

6. Project area ownership: % private: 88 % state: 2 % federal: 10

7. Project area with landowners supportive of proposal:

8. Watershed length of blue line streams: 545 miles

9. Length of blue line streams affected by proposal: 23.5 miles

10. Salmonids present: coho salmon, Chinook salmon and steelhead trout

11. Source(s) of above information: NCWAP Mattole River Watershed Assessment Report, CDFG, Mattole Salmon Group

12. Salmonids historically present: coho salmon, Chinook salmon, steelhead trout

13. Source(s) of above information: NCWAP Mattole River Watershed Assessment Report, CDFG, Mattole Salmon Group

14. Limiting factors to salmonids: Water quality (temperature), excessive sediment yield, riparian dysfunction, estuary/ lagoon issues

15. Source(s) of above information: Mattole River Watershed TMDL Technical Support Document, NCWAP Mattole River Watershed Assessment Report, CDFG, Mattole Salmon Group

Section 4: Project Objectives

1. Background and Need for project: The Mattole Restoration Council and Sanctuary Forest have conducted intensive sediment reduction efforts in the Mattole headwaters since 2000. Sanctuary Forest has completed road decommissioning throughout the Upper Mattole River and Forest Cooperative, and the Mattole Restoration Council will conduct road decommissioning and upgrades across private and industrial lands in 2004-2007. Combined, the work will result in treatment of all identified sediment delivery sites throughout the Mattole's Southern Sub-basin. **The work, costing approximately $2.3 million, requires robust monitoring to both evaluate the effectiveness of the restoration treatments, and to document the trends in watershed recovery in this critical coho salmon refugia.**

Inventories by Pacific Watershed Associates and Jack Monschke Watershed Management were conducted in 2000-2004, and identified numerous sediment delivery sites throughout the Southern Sub-basin. Restoration treatments include road decommissioning, culvert replacement, road outsloping, streambank stabilization, riparian planting, log placement, and installation of rolling dips. Work will take place throughout the 28 square mile area, with a focus on 199 road and streambank sites and approximately 17 miles of anadromous salmonid habitat.

To monitor restoration effectiveness, the Council and Sanctuary Forest will implement the qualitative protocols found in Part I of the CDFG *Interim Restoration Effectiveness and Validation Monitoring Protocols.* Both components,

photographic documentation and field evaluation checklists (using Implementation Monitoring Checklist #10), will be completed at all road restoration treatment sites and riparian planting reaches.

In addition, Sanctuary Forest will conduct implementation monitoring at ten sites to assess the quality of road decommissioning treatments within the Upper Mattole River and Forest Cooperative. Within this suite of parameters, Sanctuary Forest will evaluate stream crossing excavations ("cavity measurements"). This monitoring element seeks to determine the effectiveness of road decommissioning and estimate the amount of post-treatment sediment delivery from decommissioned stream crossings.

To monitor trends in watershed recovery, the Mattole Restoration Council will collect data on five channel metrics: longitudinal profile, channel cross-sections, pebble counts, canopy measurements and habitat typing. Twenty (20) sites will be randomly selected from a sampling universe of suitable Southern Sub-basin study reaches. Using a generalized random tessellated stratified design, sampling locations will be determined with CDFG and the US Environmental Protection Agency (which provides a data randomization service for watershed-scale monitoring). Monitoring protocols will conform to DFG and NOAA Fisheries requirements, and may change as a result of ongoing discussions between these agencies currently underway.

Taken as a whole, these protocols represent a strong monitoring component for the largest watershed restoration effort to date in the Mattole River watershed. Because we seek to apply the lessons learned in the headwaters restoration work to the other 85% of the Mattole basin, we are excited to be testing a variety of monitoring approaches to evaluate this work.

This work implements recommendations of the CDFG draft *Coho Recovery Strategy*. Tasks CM-MS-03, CM-MS-04, CM-MS-07b, CM-MW-02, CM-MW-04 are implemented within this project.

2. Known limiting factors addressed by project: N/A

3. Limiting factor remediation: N/A

4. Additional objectives: This project will include a training component to ensure high-quality surveying and monitoring practices. Three training workshops will be held in the Whitethorn, CA vicinity. CDFG personnel and Randy Klein (Redwood National Park) will lead the training workshops and will provide ongoing quality assurance/quality control, and oversight.

Section 5: Project Tasks and Results

1. Detailed Project Tasks: Project tasks are listed by monitoring type:

Qualitative Restoration Effectiveness Monitoring:

- Complete Implementation Monitoring Checklist #6 along 17 miles of streambank stabilization and riparian reforestation reaches.
- Complete Implementation Monitoring Checklist #10 at 199 road-related treatment sites.
- Perform Photographic Documentation as per CDFG and SWRCB protocols at above-described sites.

Implementation Monitoring:

- Perform water turbidity sampling at 10 sites downstream of road decommissioning worksites and at XXX control sites. Samples will be collected 2-4 times during five winter storms.
- Measure post-project erosion from 10 road decommissioning sites to determine post-project adjustments.

Watershed Recovery Trend Monitoring:

- Work with CDFG and USEPA to design a generalized random tessellated stratified sampling approach and select twenty (20) random sites within the Southern Sub-basin's anadromous stream reaches.
- Perform a suite of channel monitoring protocols within a study reach (a length equivalent to 20 bankfull widths): longitudinal profile, five cross-section measurements, pebble count, canopy measurements and habitat typing. Protocols may change as guided by ongoing conversations between DFG and NOAA Fisheries regarding watershed trend monitoring.

Training, Data Analysis and Reporting:

- Conduct three training workshop modules, one covering each monitoring type. Workshop will be conducted by CDFG and Redwood National Park personnel.
- Enter all data into Microsoft Excel and KRIS Mattole data formats.
- Publish two reports, summarizing the results of the monitoring work performed.

The oversight hydrologist will prepare a monitoring report containing a summary of results including: a discussion of important outcomes; recommendations for future monitoring; and restoration modifications to improve treatment effectiveness and reduce post treatment sediment delivery. All photos, site checklists, water turbidities and cavity measurement volumes will be stored electronically for easy access and distribution.

All field personnel will be trained to accurately perform all monitoring techniques by the oversight hydrologist. The oversight hydrologist reviews all data for possible errors and performs all calculations from data. The oversight hydrologist also performs field reviews to check on the quality of the fieldwork during the data collection period.

2. Time frame: Monitoring work will be completed in 2005-2006. Photodocumentation work will be completed pre- and post-treatment. Cavity measurements will be completed the first winter after treatment. Watershed recovery trend monitoring will occur in 2005 and 2006 (10 sites per year).

A representative sample of sites will be selected for long term monitoring. These sites will be monitored qualitatively using photos and site checklist to evaluate long-term treatment effectiveness. This monitoring will occur approximately 5 years following treatment and will be timed to correlate with a winter of high erosional stress.

3. DFG acceptable protocols used in project development and completion:
   - ☐ DFG Restoration Manual
     List:
   - ☒ DFG Monitoring Protocols
     List: Qualitative Restoration Effectiveness protocol, Photographic Documentation protocol, in-stream monitoring protocols.
   - ☐ Fish, Farms and Forestry Coalition Draft Protocols
     List:
   - ☐ PWA Road Assessment
   - ☐ Star Worksheet Road Assessment
   - ☐ V-Star residual Pool Volume
   - ☐ Juvenile summer abundance estimation
   - ☐ Out-migrant trapping and efficiency
   - ☐ California Content Standards
   - ☐ National Science Content Standards

4. Other protocols: Redwood National Park post-project erosion survey protocols, study design by USEPA (Corvallis lab)

5. Deliverables: Monitoring report, training workshop agenda and list of participants, final report, photodocumentation, monitoring checklists.

6. Expected Quantitative Results:
   a. Stream length treated/assessed/made more accessible (distance in feet): 20 study reaches of 20 bankfull widths
   b. Instream habitat structures to be installed (number):
   c. Fencing length to be installed/repaired (distance in feet):
   d. Road length treated/assessed (distance in miles):
   e. Stream crossings treated (number):
   f. Sediment prevented from entering the stream (volume in cubic yards):
   g. Trees planted (number):
   h. Area planted/preserved/assessed (area in acres):
   i. Public meetings (number):
   j. Public meeting attendees (number):
   k. Students trained (number):
   l. Juvenile fish produced: released:

7. Other products and results: Completion of implementation checklist at 199 road sites and 17 miles of riparian planting zones, completion of DFG channel monitoring protocols at 20 randomly selected sites, and completion of cavity excavation monitoring at 10 sites.

8. Applicant's qualifications and experience: The Mattole Restoration Council and Sanctuary Forest, Inc. have implemented watershed restoration projects for many years, recently focusing on the Mattole headwaters area. The Council has obtained monitoring funding through the State Coastal Conservancy and the State Water Resources Control Board (ultimately subcontracted to the Mattole Salmon Group). Sanctuary Forest has worked with Randy Klein to implement post-project erosion measurements in 2003 and 2004. Both groups have experience managing numerous watershed restoration and conservation projects.

9. Previously completed projects and outcomes under grant program: The Mattole Restoration Council has completed numerous road upgrade, road decommissioning, tree planting, inventory and public outreach projects with the CDFG Fisheries Restoration Grants Program.

Section 6: Landowners, Access and Permits

1. Landowners granting access for project (Please attach access agreements): Most monitoring sites will be located within the Upper Mattole River and Forest Cooperative, which includes the following landowner/land manager members: Wildlife Conservation Board, Save-the-Redwoods League, Coastal Conservancy, Dept. of Fish and Game, Restoration Forestry, Dept. of Parks and Recreation and Sanctuary Forest, Inc. A sample landowner access permission form is attached. Others are available on file at the MRC's Whitethorn office.

2. Permits: No permits are required for this work.

3. Lead CEQA agency: N/A

4. Required mitigation? ☐

Section 7: Project Budget

1. Summary Project Costs (Please attach detailed budget):

Sources of Funds	Cash	In-kind (if applicable)	Total
Fisheries Restoration Grant Program	$65,061	*	$65,061
Other State Agencies Name(s) and amount(s) of each: State Coastal Conservancy	$11,989		$11,989
Federal Name(s) and amount(s) of each: Bureau of Land Management	$7,000		$7,000
Applicant			
Other Sources Name(s) and amount(s) of each: USEPA Corvallis Lab		$1,000**	$1,000
Total	$83,989	$1,000	$84,989

2. Standardized Costs: All costs are within CDFG's standardized cost guidelines.

3. Budget justification: *It is anticipated that CDFG personnel will provide an in-kind match of staff time in the training and implementation of the watershed recovery trend monitoring, but it is impossible to estimate the amount at this time. **This in-kind match of staff time is toward the development of sampling design. While the professional services are valued at approximately $1,000, this is a free USEPA service, and therefore this is not included in the project budget.

4. Administrative Overhead: 10%

Section 8: Supplemental or Specialized Information

In the following order, please attach the following required items, as appropriate to the project type:

Exhibit 2: CEQA Documentation

☒ 1. Project budget according to the sample in the Solicitation. See examples and instructions on pages B10-B14. (ALL)
☒ 2. Plan view diagram. See example on page B9. (CC, CF, FL, HB, HI, HR, HS, HU, MO, PM, SC, TW, WC, WD)
☒ 3. Project location topo map, 7.5 minute. See example on page B8. (CC, CF, FL, HA, HB, HI, HR, HS, HU, MD, MO, PM, RE, SC, TE, TW, WC, WD, WP)
☒ 4. Watershed map. See Section III. (HU, MD, MO, OR, PI, PL, WP)
☒ 5. Landowner access agreements. See examples on pages B2-B7. (All projects with on-the-ground work)
☐ 6. Project 10-year maintenance agreement. See examples on pages B3-B5. (HR, HU)
☐ 7. Written eligibility certification from CDF. See Section III. (CF)
☐ 8. Evaluation plan. (see Section III - ED, TE). Quality Assessment/Quality Control Plan (see Section III - MD, MO).
☐ 9. Land acquisition/easement information. See page 7, Section III. (HA)
☐ 10. Water purchase information. See pages 9-10, Section III. (WP)
☐ 11. Status report. See Section III. (OR, PI)
☐ 12. 5-year management plan (new projects only). See page 13-14, Section III. (RE)
☒ 13. Environmental project questionnaire. See form on pages B15-17. (CC, CF, FL, HA, HB, HI, HR, HS, HU, MD, MO, PM, RE, SC, TW, WC, WD, WP)
☐ 14. Project follows guidelines in the California Coho Salmon Recovery Strategy (RE) (Coho related projects **must** follow guidelines outlined in appendices H or I, view at http://www.dfg.ca.gov/nafwb/pubs/2003/CohoRecovery/RecoveryStrategy_20031105.pdf
☒ 15 Drug Free Workplace, Std 21 (Appendix B)
☒ 16. Non-Discrimination, Std 19 (Appendix B)
☒ 17. Payee Data Record, Std 204 (Appendix B)

Supplemental Information Checklist by Project Type
(Please refer to the item numbers above)

Project Type	Item Number
AC	1
CC	1, 2, 3, 5, 13, 15, 16, 17
CF	1, 2, 3, 5, 7, 13, 15, 16, 17
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Project Type	Item Number
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Exhibit 2: CEQA Documentation

Mattole Restoration Council

Upper Mattole Watershed Rehabilitation Project, Phase II Monitoring Component

Estimated Budget

			Amt. Req.	Cost Share	Project Total
PERSONNEL COSTS					
Level of Staff	Hours	Rate			
Oversight Hydrologist	125	$80.00	$6,000	$4,000	$10,000
Supervisor/coordinator	900	$30.00	$24,000	$3,000	$27,000
Field Technicians	1800	$22.00	$24,000	$15,600	$39,600
Bookkeeper	48	$24.00	$0	$1,152	$1,152
Total Personnel Costs:			**$54,000**	**$13,752**	**$67,752**
OPERATING EXPENSES:	Cost	Units			
Tools and Instruments			$1,800	$1,400	$3,200
Photodocumentation Monuments	$14.00	199	$2,400	$386	$2,786
Safety Items and Clothing			$180	$220	$400
Mileage	$0.34	2400	$616	$200	$816
Photographic Supplies			$100	$300	$400
Printing and Duplicating			$50	$50	$100
Telephone			$0	$100	$100
Office Expenses			$0	$800	$800
TOTAL OPERATING EXPENSES:			**$5,146**	**$3,456**	**$8,602**
Sub-Total			**$59,146**	**$17,208**	**$76,354**
Administrative Overhead @ 10%			**$5,915**	**$1,721**	**$7,635**
Total Estimated Budget			**$65,061**	**$18,929**	**$83,989**

Percent Cost Match **22.54%**

Source of Federal Cost Share: Bureau of Land Management

Amount of Federal Cost Share (if any): $7,000

Additional Cost Share: State Coastal Conservancy ($11,929, pending)

Hourly personnel costs include wage, benefits and worker's compensation insurance.

Wages reflect recent prevailing wage rulings by the Dept. of Industial Relations.

Exhibit 2: CEQA Documentation

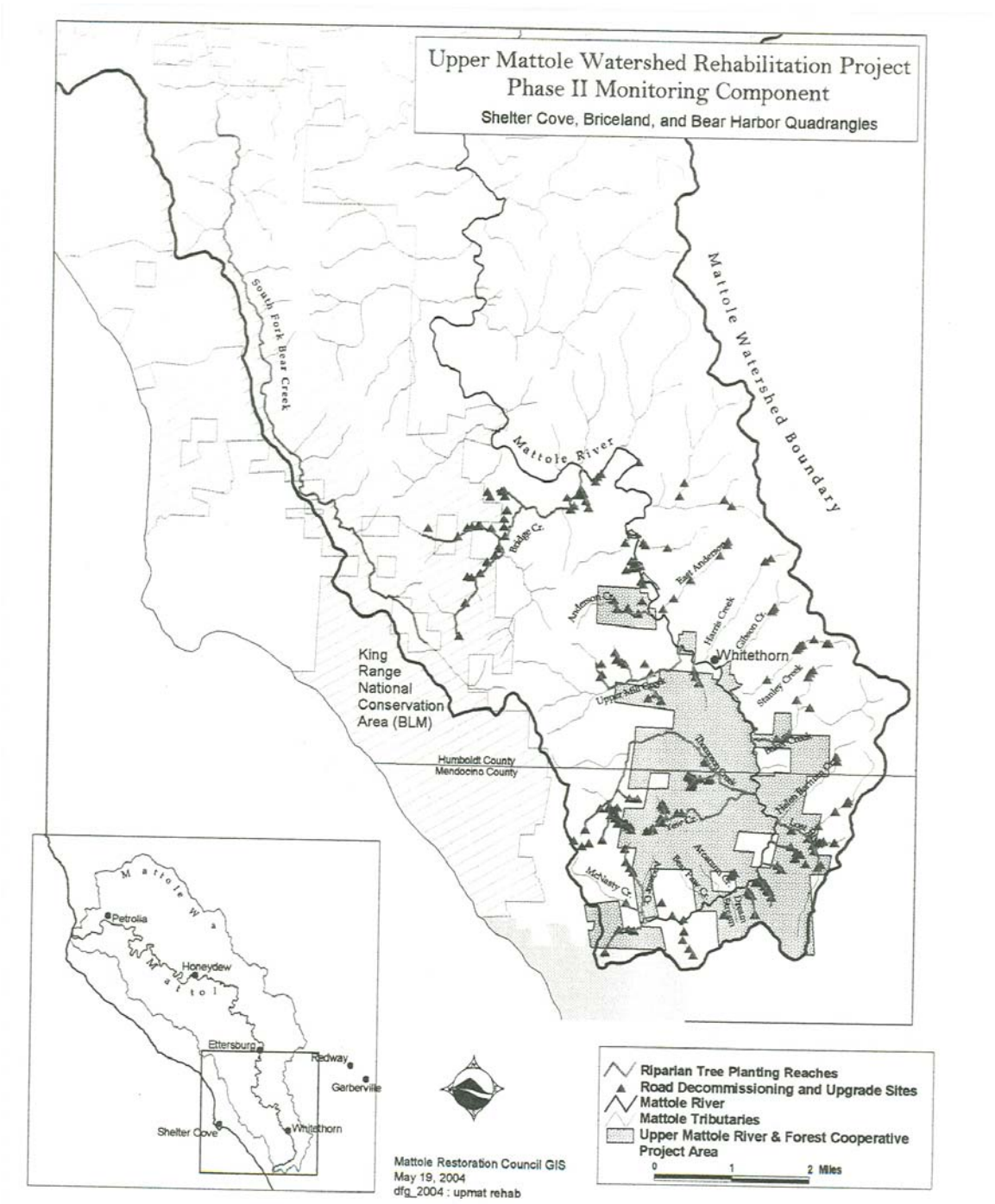

Exhibit 2: CEQA Documentation

286 R1,3

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Proposal Application Form

Section 1: Summary Information

1. Applicant name: Mattole Restoration Council
2. Contact person: Chris Larson
3. Address: PO Box 160
4. City: Petrolia
5. State: CA
6. ZIP: 95558
7. Telephone number: (707) 629- 3514
8. FAX number: (707) 629- 3577
9. Email address: MRC@mattole.org

10. Type: Public Agency ☐ Nonprofit Organization ☒ Private Enterprise ☐ Indian Tribe ☐

11. OSBCR Certified Small Business? ☒
    If yes, specify the industry group and Small Business Reference Number:
    22175

12. Past contractor? ☒

13. Federal taxpayer ID: 68-0037149

14. Project type: HR (Riparian restoration)

15. Project title: Riparian Reforestation for Salmonid Recovery in the Mattole River Headwaters

16. Amount requested: $47,190

17. Total project cost: $161,490

18. Salmonid species benefited: Chinook ☒ Coho ☒ Steelhead ☒ Cutthroat ☐

19. Project summary: The Southern Subbasin of the Mattole River contains the best remaining coho salmon habitat in the watershed. To improve conditions for coho salmon, the Mattole Restoration Council will plant native Douglas-fir, Redwood, and hardwood species in the riparian zones of South Fork Bear, Baker, Big Alder, Pipe, Campbell, Yew, Green, and Lost River Creeks, as well as on 66 decommissioned stream crossings within the sub-basin. Riparian tree planting is intended to accelerate canopy closure to enhance riparian shade and streambank stability for enhanced salmonid survival.

20. Stream: Mainstem Mattole, South Fork Bear, Baker, Big Alder, Pipe, Campbell, Yew, Green, and Lost River Creeks

21. Tributary to: Mattole River

22. Major drainage system: Mattole River

23. County(ies): Mendocino and Humboldt

24. Within Coastal Zone? ☐ Within Trinity River basin? ☐ Within Klamath River basin? ☐

Section 2: Location Information

1. Township, Range, Section: Center of project area is within T5S, R2E, section 27.

2. Latitude, Longitude (in decimal degrees): Center of project area is located at 39.970° N lat, 123.984° W long.

3. Location description: The project area conforms to the Mattole River watershed's "Southern Sub-basin," those areas upstream of the confluence of Bridge Creek and the Mattole River.

4. Directions: From Highway 101, travel west on Shelter Cove Road. After approximately 18 miles, turn left on the Briceland-Thorn Road. The proposed treatments are located within the next eight miles. Access to planting sites is along numerous private roads between Shelter Cove Road and Four Corners.

Section 3: Watershed Information

1. Major Drainage Name: Mattole River

2. Watershed Name: Mattole River

3. Watershed area : 304 square miles

4. Watershed area included in this proposal: 28 square miles

5. Land use statement: The Upper Mattole River and Forest Cooperative manages approximately 25% of the Mattole's Southern sub-basin as a collaborative entity of state, federal, private and non-profit landowners and agencies. Such lands are managed for salmonid conservation, as they contain one-third of the old-growth forest remaining in the Mattole watershed and key spawning and rearing grounds for threatened and endangered coho, Chinook and steelhead salmonids. The remaining portion of the land is managed as private rural residential, and by the BLM King Range Conservation Area for recreation and fisheries restoration. No private residences are involved in livestock grazing. Land use is not expected to change in the next 5 years.

6. Project area ownership: % private: 86% % state: 10% % federal: 4%

7. Project area with landowners supportive of proposal: 70-80% (estimated)

8. Watershed length of blue line streams: 545 miles

9. Length of blue line streams affected by proposal: 23.5 miles

10. Salmonids present: coho, Chinook, steelhead

11. Source(s) of above information: NCWAP Mattole River Watershed Assessment Report, CDFG, Mattole Salmon Group

12. Salmonids historically present: coho, Chinook, steelhead

13. Source(s) of above information: NCWAP Mattole River Watershed Assessment Report, CDFG, Mattole Salmon Group

14. Limiting factors to salmonids: Water quality (temperature), excessive sediment yield, riparian dysfunction, estuary/ lagoon issues

15. Source(s) of above information: Mattole River Watershed TMDL Technical Support Document, NCWAP Mattole River Watershed Assessment Report, CDFG, Mattole Salmon Group

Section 4: Project Objectives

1. Background and Need for project: The Mattole River and Range Partnership (MRRP), a collaboration between five Mattole-based conservation organizations (Mattole Restoration Council, Sanctuary Forest, Mattole Salmon Group, Middle Mattole Conservancy and Lower Mattole Fire Safe Council), Bureau of Land Management, and the State of California, works to restore anadromous fisheries and riparian habitats in the Mattole River watershed. The first phase of the Partnership has completed over $1.4 million of restoration and conservation projects since 2003. The work has included upslope watershed restoration, conservation easement acquisition and planning, riparian planting, in-stream habitat enhancement and the creation of a watershed restoration plan. Riparian Reforestation for Salmonid Recovery in the Mattole River Headwaters complements this program through riparian enhancement.

Phase II of the Mattole River and Range Partnership begins in the summer of 2005. Sanctuary Forest and the MRC will collectively decommission 66 road sites of the Mattole's Southern sub-basin. In the winters of 2005-2007, MRC will plant 90,000 trees along the riparian corridors of South Fork Bear, Bridge, Anderson, Mill, Thompson, Yew, Baker, Lost River,

Big Alder, Pipe, Campbell (tributary to Thompson), Green (tributary to Thompson) Baker, and Ancestor Creeks, Mattole River, and unnamed tributaries, Mattole River, and unnamed tributaries, as well as 13,200 trees on the 66 decommissioned stream crossings.

Riparian tree planting sites were identified through aerial photograph analysis and ground surveys where 90,000 trees will enhance riparian shade and bank and upslope stability. Douglas-fir and redwood are the primary species planted, as they provide long-term cover and large woody debris to the stream. Only native grown stock will be used.

Tree Planting in the Mattole River's Southern Subasin addresses the following tasks, as outlined by the California Dept. of Fish and Game's *Recovery Strategy for California Coho Salmon* (*Oncorhynchus kisutch*):

> CM-MS-02a: Ensure protection of the high quality habitat found in the Mattole River headwaters and historic coho salmon streams.
>
> CM-MS-02b Protect high quality habitat found in the South Fork of Vanauken, Mill, Stanley, Thompson, Yew, and Lost River creeks through recognition of current land management practices and encourage private landowners to continue land stewardship.
>
> CM-MS-15 Encourage the planting of trees in riparian areas when appropriate and where conditions are suitable.

The Mattole River once had robust Chinook salmon, coho salmon and steelhead trout populations. In the 1960s, Department of Fish and Game estimated runs of 2,000 Chinook salmon, 5,000 coho salmon and 12,000 steelhead trout in the Mattole River. Over the past five decades Mattole salmonid runs have declined sharply, with both Chinook and coho populations now estimated to be in the hundreds. Excessive sedimentation resulting from timber harvest and road construction have degraded salmon spawning and rearing habitat, reduced riparian canopy density, and increased summertime water temperatures.

The project area conforms to the Mattole headwaters, defined as the "Southern Sub-basin" by the 2002 North Coast Watershed Assessment Program (NCWAP) *Mattole River Watershed Assessment Report*. The Mattole headwaters area is recognized as the key spawning and rearing habitat for salmonids in the watershed. Commensurate with the importance of the area is the investment in its conservation by private, state and federal agencies. The total expenditures for land acquisitions and restoration work within the Upper Mattole River and Forest Cooperative exceed ten million dollars.

In 2002, the North Coast Regional Water Quality Control Board (NCRWQCB) released the *TMDL Technical Support Document for the Mattole River*, and the US Environmental Protection Agency (USEPA) Region IX finalized the *Mattole River TMDL for Sediment and Temperature*. The TMDL document stresses the importance of sediment reduction and riparian restoration activities such as those proposed herein. "Large woody debris recruitment potential is limited by the low percentage of near-stream forest…Where current canopy is inadequate and site conditions, including geology, are appropriate, initiate tree planting and other vegetation management to hasten the development of denser and more extensive riparian canopy" (NCWAP).

2. Known limiting factors addressed by project: This project addresses three limiting factors: riparian dysfunction, excessive sediment yield, and water quality (temperature). Tree planting in the Mattole tributaries has been identified by the Mattole Restoration Council, the Dept. of Fish and Game, and the North Coast Water Quality Control Board as a crucial action to increase aquatic habitat suitability for salmonid species. This project will stabilize decommissioned roads and streambanks, limiting sedimentation from both sources.

3. Limiting factor remediation: In this project, the Mattole Restoration Council will plant 90,000 trees within the riparian zones of South Fork Bear, Bridge, Anderson, Mill, Thompson, Yew, Baker, Lost River, Big Alder, Pipe, Campbell (tributary to Thompson), Green (tributary to Thompson), Baker, and Ancestor Creeks, the Mattole River, and unnamed tributaries, as well as on 66 decommissioned stream crossings. This project is expected to provide long-term benefits for riparian canopy, bank stability, and large wood recruitment. Because many of the project area stream reaches are dominated by short-lived hardwood species, this project will ensure suitable riparian conditions into the future.

4. Additional objectives: Passive conversion of riparian vegetation stands from predominantly deciduous and grassland habitats to conifer habitats will provide long-term large wood recruitment, with benefits to aquatic habitat complexity. Conifers' longevity will also benefit streamside habit.

Section 5: Project Tasks and Results

1. Detailed Project Tasks: In this project, the MRC will plant 90,000 native Douglas-fir trees at various sites within the headwaters-region of the Mattole River. Planting will occur on three types of sites: decommissioned stream crossings, riparian areas of selected headwaters tributaries, and throughout lower Baker Creek, currently infested with Scotch Broom. All riparian planting will be within and immediately adjacent to the riparian area zone of the tributaries.

Road decommissioning will occur at 66 sites within the headwaters-area of the Mattole River (southern sub-basin). Each of the 66 sites will be planted with roughly 150-300 Douglas-fir trees using the MRC method of micro-site selection. The following summarizes planting at decommissioned stream crossing sites:

Decommissioned stream crossings within:	**Units planted**	**Number of trees**
Big Alder Creek	12 sites	2,400
Pipe Creek	5 sites	1,000
Campbell Creek (tributary to Thompson)	16 sites	3,200
Yew Creek	14 sites	2,800
Green Creek (tributary to Thompson)	9 sites	1,800
Upper Mill Creek	2 sites	400
Anderson Creek	4 sites	600
Bridge Creek	6 sites	1,000
Trees planted on decommissioned stream crossing sites:		**13,200**

Tree planting will also occur within anadromous riparian zones of South Fork Bear, Bridge, Anderson, Mill, Thompson, Yew, Baker, Lost River, Big Alder, Pipe, Campbell (tributary to Thompson), Green (tributary to Thompson), Baker, and Ancestor Creeks, the Mattole River, and unnamed tributaries. A total of 30.6 miles of riparian area will be planted with 76,800 trees. The following summarizes planting locations:

Tributary	Miles Planted	# of Trees Planted
South Fork Bear Creek	8.6	21,625
Bridge Creek	5.8	14,500
Anderson Creek	0.6	1,525
Upper Mill Creek	2.5	6,150
Baker Creek	0.6	1,800
Thompson Creek	5.3	13,200
Yew Creek	2.0	5,000
Lost River	2.0	5,000
Ancestor Creek	1.0	2,500
Upper Mattole	1.4	3,375
Unnamed Tributaries	0.8	2,125
Total miles and trees planted	30.6	76,800

Planting will occur under the guidance of the Reforestation Project Coordinator, using the method of micro-site selection (trees will planted in places where they are most likely to survive based on site conditions). Work will be conducted in accordance of with methods described in the California Salmonid Stream Habitat Restoration Manual (pages VII-83 through VII-86).

Mattole Restoration Council Reforestation Program staff will conduct post-project monitoring and surveys in accordance with the DFG monitoring protocols contained in the Restoration Effectiveness Monitoring chapter. This will include the completion of Implementation Effectiveness Checklist #6 (covered under a related monitoring proposal: "Upper Mattole River Watershed Rehabilitation, Phase II Monitoring Component"). It will also include pin-flagging selected treatment site seedlings for survival survey in following years.

2. Time frame: Planting will be completed during the winter season of January-March 2005 and January-March 2006. Survival surveys will follow two summers after the completion of planting (summer of 2006 and 2007).

3. DFG acceptable protocols used in project development and completion:

☒ DFG Restoration Manual

List: "Planting Seedlings," pp VII-83 through VII-86
☒ DFG Monitoring Protocols
List: Implementation Monitoring Checklist #6, Pin flagging of monitoring plots
☐ Fish, Farms and Forestry Coalition Draft Protocols
List:
☐ PWA Road Assessment
☐ Star Worksheet Road Assessment
☐ V-Star residual Pool Volume
☐ Juvenile summer abundance estimation
☐ Out-migrant trapping and efficiency
☐ California Content Standards
☐ National Science Content Standards

4. Other protocols:

5. Deliverables: Final report (after tree-planting but before survival surveys), photodocumentation, implementation monitoring checklists.

6. Expected Quantitative Results:
a. Stream length treated/assessed/made more accessible (distance in feet): 30.6 miles
b. Instream habitat structures to be installed (number):
c. Fencing length to be installed/repaired (distance in feet):
d. Road length treated/assessed (distance in miles):
e. Stream crossings treated (number): 66 sites
f. Sediment prevented from entering the stream (volume in cubic yards):
g. Trees planted (number): 90,000
h. Area planted/preserved/assessed (area in acres): Approximately 180 acres within 30.6 miles of planting reaches
i. Public meetings (number):
j. Public meeting attendees (number):
k. Students trained (number):
l. Juvenile fish produced: released:

7. Other products and results:

8. Applicant's qualifications and experience: The Mattole Restoration Council has operated a reforestation program since 1990, concentrating on both riparian and disturbed areas. The program has planted over 430,000 trees on private and pubic lands. The Council operates a local seed collection and propagation program from which it cultivates most of its trees.

9. Previously completed projects and outcomes under grant program: In 2002-2004, the Mattole Restoration Council planted 18,600 native Douglas-fir seedlings along Middle Creek, a mid-Mattole tributary.

Section 6: Landowners, Access and Permits

1. Landowners granting access for project (Please attach access agreements): The following landowners have granted access and have signed a 10-year maintenance agreement for this project. A sample form is attached, and other are available for review at the MRC's Whitethorn office.

Tim Metz – multiple parcels
Fern Rock Trust – 215-281-023
Robert Then – 215-281-007
Women's Forest Sanctuary – 215-281-002
State of California – multiple parcels
Jack and Leona Mercer – 051-250-001
Sanctuary Forest, Inc. – multiple parcels
Bureau of Land Management – multiple parcels
Northcoast Regional Land Trust – 215-231-012
Save the Redwoods League – multiple parcels
Barbara Stevenson – 108-141-031
Michael Alumbaugh & Jennifer DaParma – 108-141-016
Iris Carpenter – 108-141-016

Laurel Radloff – 108-141-014
Beth Maizes – multiple parcels
Lee & Virginia Jaramillo – 215-241-004
Daniel & Donna Lovato – 215-241-019
Richard Donscheski – 215-241-037
Cynthia Packard – 108-151-028
Michael & Ceanne Herndon – 108-151-029
Robert & Val McKee – multiple parcels
Roy Baker – multiple parcels
Susan Marie Ashlock – multiple parcels
Redwoods Abbey – 051-110-001
Joseph Marengi – 108-181-004
Robert & Barbara McCormack – 108-181-001
Robert Miller – 108-121-015
Leana Schnell – 108-121-011
Barbara Monti – 108-121-012
Cheryl Oakes – 051-060-010
Coastal Headwaters Association – 051-060-006
Shasta Kersh – 051-050-005
Brandon DePema – 215-202-004
Dian Bacigalupi – 215-202-003
Robert Ormsbee – 215-300-002
Kazimi Forest Partners, LLP – 215-201-004

2. Permits: No permits are required.

3. Lead CEQA agency: California Department of Fish and Game

4. Required mitigation? ☐

Section 7: Project Budget

1. Summary Project Costs (Please attach detailed budget):

Sources of Funds	Cash	In-kind (if applicable)	Total
Fisheries Restoration Grant Program	$47,190		$47,190
Other State Agencies Name(s) and amount(s) of each: State Water Resources Control Board*	$83,500		$83,500
Federal Name(s) and amount(s) of each: Bureau of Land Management and/or National Fish and Wildlife Foundation	$30,800		$30,800
Applicant			
Other Sources Name(s) and amount(s) of each:			
Total	$161,490		$161,490

2. Standardized Costs: All costs fall within the standard cost guidelines published by the California Department of Fish and Game.

3. Budget justification: *SWRCB funds are federally appropriated through the Clean Water Act Section 319(h) program.

4. Administrative Overhead: 10%

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(Please refer to the item numbers above)

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PI	1, 4, 5, 11, 15, 16, 17

Exhibit 2: CEQA Documentation

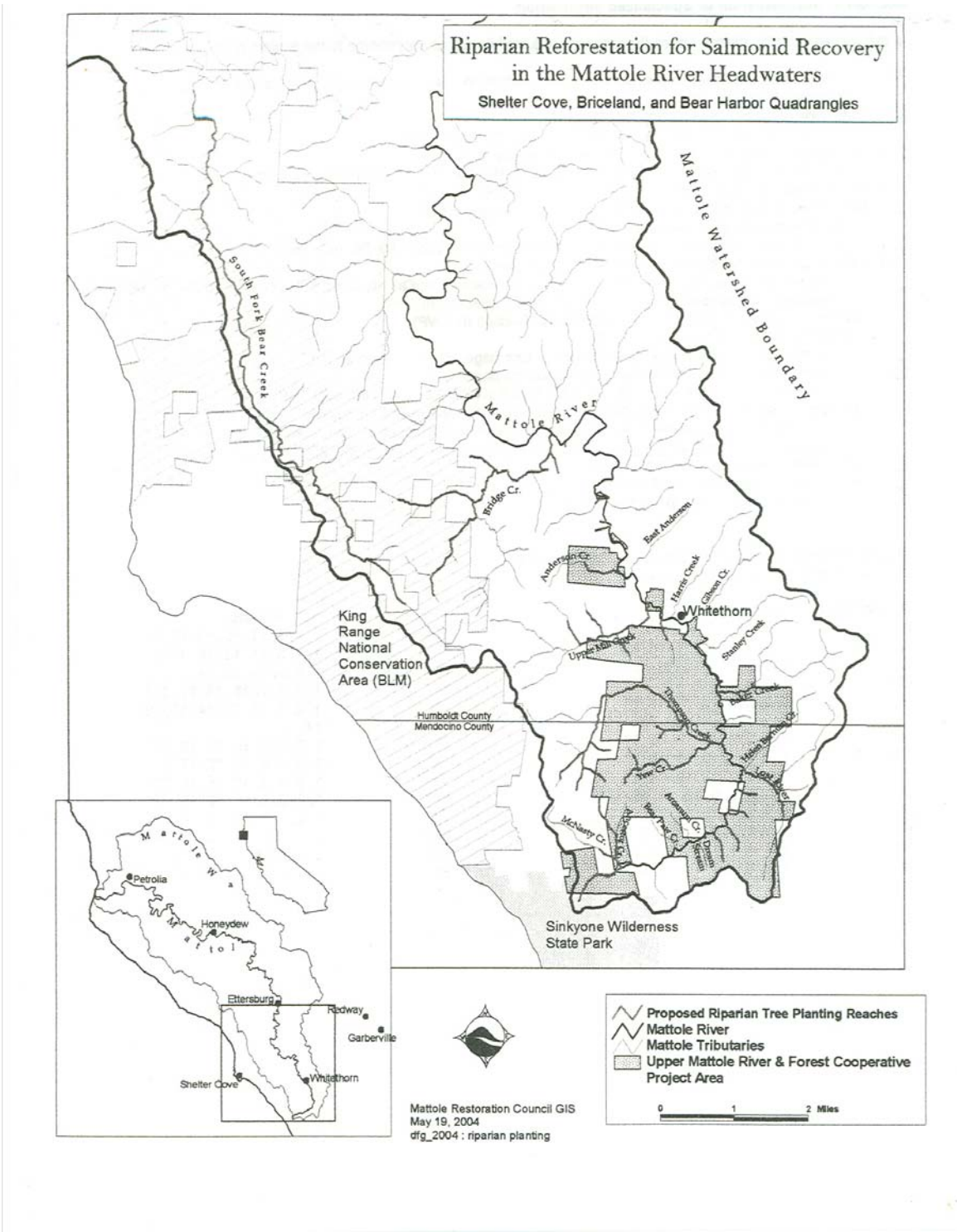


EXHIBIT A
Upper Mattole Coho Recovery Project
Statement of Work

Under direction of the Department of Fish and Game, and under the following conditions and terms, the Grantee will:

1. Improve spawning and rearing habitat by reducing sediment delivery and improve access to spawning and rearing habitat by modifying a partial fish passage barrier. The project will benefit coho salmon, Chinook salmon, and steelhead trout in selected sections of Bridge, Anderson, and Upper Mill creeks, which are tributaries to Mattole River in Humboldt County. The primary objective is to save 12,415 cubic yards of sediment from delivery by dispersing road runoff on approximately 10 miles of road, reestablishing drainage patterns at 39 stream crossings, treating 11 additional sites along the alignment and stabilizing a failing stream bank by constructing 3 boulder wing deflectors. The secondary objective is to improve access to approximately 2 miles of habitat for migrating salmonids by modifying a debris jam that is currently a partial fish passage barrier.

2. Work will take place in the Mattole River watershed. The project is located in Township 4S, Range 2E, Section 33 and Township 5S, Range 2E, Section 00 of the Briceland and Shelter Cove 7.5 Minute U.S.G.S. Quadrangles, as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.

3. The Grantee will decommission 8 stream crossings. The following treatments will be implemented where appropriate:
    - Complete excavation of stream crossing fills, including 100 year flood channel bottom widths and 2:1 or otherwise stable side slopes;
    - Excavation of unstable or potential unstable sidecast materials that could otherwise fail and deliver sediment to a stream;
    - Road surface treatments (ripping, outsloping and/or cross draining) to disperse and reduce surface runoff;
    - Seeding and mulching of all exposed soils which may deliver sediment to a stream. Woody debris will be concentrated on finished slopes adjacent to stream crossings. The standard for success is 80% ground cover for broadcast planting of seed, after a period of three years.

    The Grantee will upgrade 42 sites including approximately 31 stream crossings. The following treatments will be implemented where appropriate:
    - Upgrading stream crossings by installing culverts sized for the 100-year flood flow, including sufficient capacity for expected wood and sediment; eliminate diversion potential by installing a critical dip; replacing culverted fills with hardened fords or armored fills, etc;
    - Excavation of unstable fill slopes;

- Dispersion of road runoff and disconnecting road surface runoff from streams, including but not limited to, berm removal, road surface shaping and installation of ditch relief culverts.
- Stabilizing sediment and filtering run-off by adding rock to road surfaces, excavated stream crossings, critical dips and unstable sediment that cannot be excavated.
- Seed and mulch all exposed soils which may deliver sediment to a stream. The standard for success is 80% ground cover for broadcast planting of seed, after a period of three years.

The Grantee will construct three boulder wing deflectors along a failing stream bank and remove alders from a gravel bar in mid-channel that are deflecting the stream flow into the eroding bank.

The Grantee will modify a debris jam to improve fish passage. Large woody debris removed from the jam will be left in the channel and anchored if necessary to increase fish habitat.

4. All stream crossings will meet flow carrying capacity required for a 100 year flood event as identified by specifications determined by NOAA Fisheries and the California Department of Fish and Game.

5. All crossing upgrades in fish bearing reaches of streams will follow the National Marine Fisheries Service (NMFS 2001) Guidelines for Salmonid Passage at Stream Crossings and DFG criteria for adult and juvenile salmonid fish passage as described in the Third Edition, Volume II, Part IX, February 2003, of the *California Salmonid Stream Habitat Restoration Manual*. Culvert replacement or modification designs shall be visually reviewed and authorized by NOAA Fisheries (or CDFG) engineers prior to commencement of work.

6. The landowner/grantee must maintain road upgrading projects for at least 10 years.

7. Sites which are expected to erode and deliver sediment to the stream are the only locations where work will be authorized for reimbursement under the terms of this agreement. Reimbursement will not be authorized for work done to improve aesthetics only.

8. The Grantee shall notify the Grant Manager a minimum of five working days before any fish bearing stream reaches are dewatered and the stream flow diverted. The notification will provide a reasonable time for Department personnel to supervise the implementation of the water diversion plan and oversee the safe removal and relocation of salmonids and other fish life from the project area. If the project requires dewatering of the site, and the relocation of salmonids, the Grantee will implement the following measures to minimize harm and mortality to listed salmonids:

- Fish relocation and dewatering activities shall only occur between June 15 and November 1 of each year.
- The Grantee shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible.
- All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service, *Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act*, June 2000.
- The Grantee will provide fish relocation data to the Grant Manager on a form provided by the Department of Fish and Game.
- Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX 52 and IX 53 of the *California Salmonid Stream Habitat Restoration Manual.*

9. All road upgrading or decommissioning will be done in accordance with techniques described in the *Handbook for Forest and Ranch Roads,* (PWA, 1994c.) and the *California Salmonid Stream Restoration Manual*, Third Edition, Volume II, Part X, January 2004. All road decommissioning and upgrade sites and techniques shall be approved by the Grant Manager before any equipment work takes place.

10. All habitat improvements will follow techniques described in the Third Edition, January 1998, of the *California Salmonid Stream Habitat Restoration Manual*, Flosi et al and the *California Salmonid Stream Restoration Manual*, Third Edition, Volume II, Part XI, January 2004.

11. Work in flowing streams is restricted to June 15 through November 1. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Game.

12. Upon completion of the project, the Grantee shall submit two hard copies of a final written report and one electronic, *Microsoft Word* compatible, copy on 3.5 inch floppy disk(s) or CD. If the project is not completed in that calendar year, the Grantee will submit a summary of the portion of the project completed during that year by no later than December 31. The report shall include, but not necessarily be limited to the following information:
    - grant number
    - project name
    - geographic area (e.g., watershed name)
    - location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map
    - geospatial reference/location (lat/long is preferred – defined as point, line, or polygon)
    - project start and end dates and the number of person hours expended

- total of each fund source expended to complete the project, breaking down Grant dollars and any other funding, including type of match (cash or in-kind service)
- expected benefits to anadromous salmonids from the project
- labeled before and after photographs of any restoration activities and techniques
- specific project access using public and private roads and trails, with landowner name and address
- complete as built project description
- report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (HU) (Report N/A to those that do not apply)

Habitat Projects: (all)

- Identify the watershed/sub-basin plan or assessment in which the project is identified as a priority.
- Name the priority habitat limiting factors identified in that plan that are addressed by the project
- Type of monitoring included in the project
  - Design spec achieved
  - Fish movement/abundance
- Number of stream miles treated/affected by the project within the project boundaries.

Upland Habitat Projects (HU)

- Number of actions (road decommission / upgrade)
- Number of acres treated.
- Number of miles of road decommissioned or upgraded (e.g., treated).
- Number of cubic yards of sediment saved from entering the steam.

Riparian Habitat Projects (HR, HS)

- Number of miles treated (e.g., fenced)
- Number of acres treated (e.g., planted)
- Number of acres and type of invasive species controlled
- Species and size of trees planted
- Number of trees/density of plantings
- Feet of stream bank stabilized and treatments used.

Water Quality Projects

- Water quality limitations addressed by the project (e.g. 303(d), TMDL)

13. The Grantee will acknowledge the participation of the Department of Fish and Game, Fisheries Restoration Grant funds on any signs, flyers, or other types of written

communication or notice to advertise or explain the Upper Mattole Coho Recovery Project

Exhibit 2: CEQA Documentation

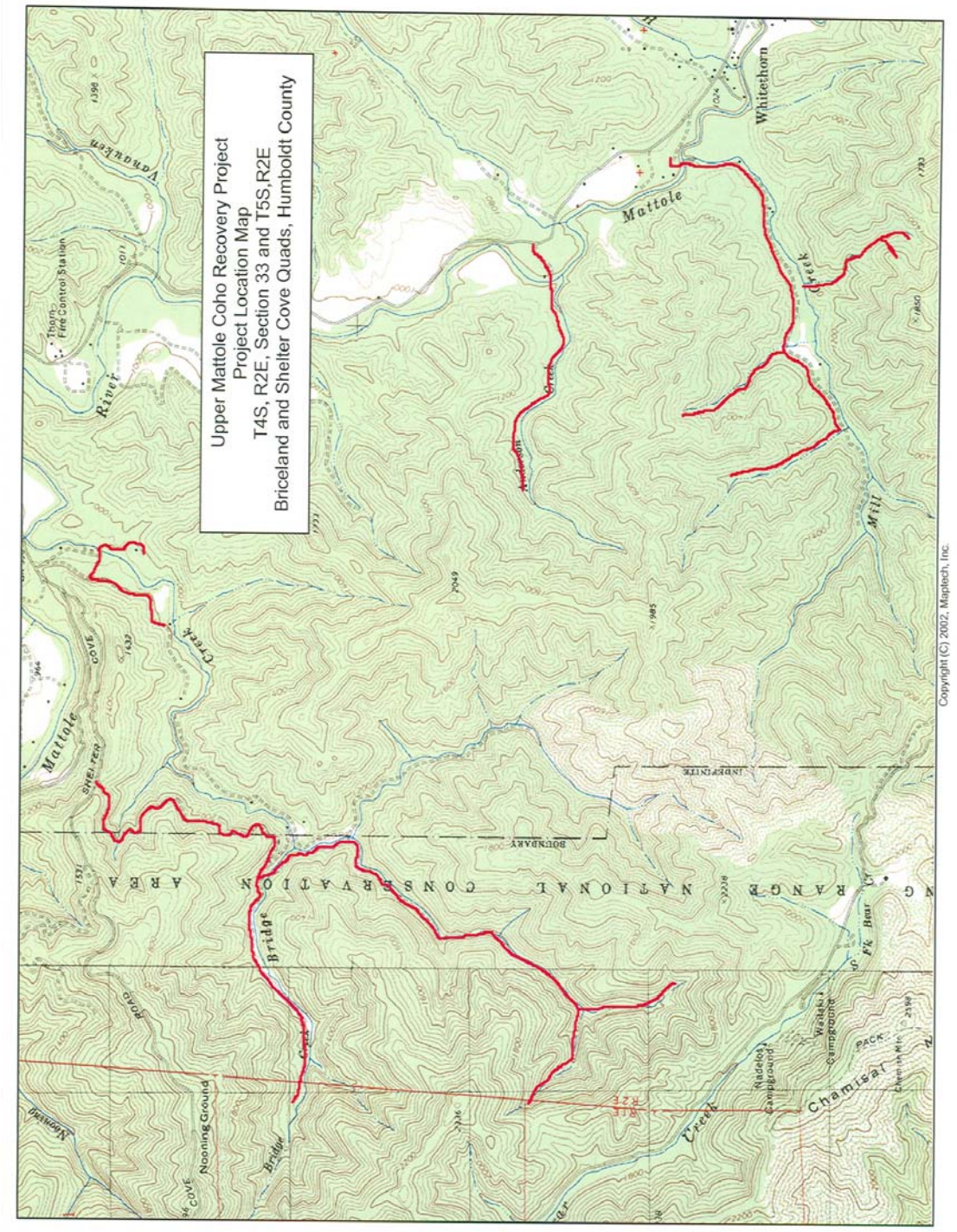


Exhibit 2: CEQA Documentation

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name
Possible Species within the Briceland and Surrounding Quads for:
Upper Mattole Coho Recovery Project
T4S, R2E, Section 33 and T5S, R2E, Section 00
Humboldt County

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
1	American peregrine falcon *Falco peregrinus anatum*	ABNKD06071	Delisted	Endangered	G4T3	S2	
2	Coho salmon - central California esu *Oncorhynchus kisutch*	AFCHA02030	Threatened	Endangered	G4	S2?	
3	Cooper's hawk *Accipiter cooperii*	ABNKC12040			G5	S3	SC
4	Howell's montia *Montia howellii*	PDPOR05070			G3G4	S1.2	2/3-2-1
5	Humboldt milk-vetch *Astragalus agnicidus*	PDFAB0F080		Endangered	G1	S1.1	1B/3-3-3
6	Mendocino coast Indian paintbrush *Castilleja mendocinensis*	PDSCR0D3N0			G2	S2.2	1B/2-2-2
7	Oregon coast Indian paintbrush *Castilleja affinis ssp. litoralis*	PDSCR0D1V0			G4G5T4	S2.2	2/2-2-1
8	Pacific fisher *Martes pennanti pacifica*	AMAJF01021	Candidate		G5T3T4Q	S2S3	SC
9	Pacific gilia *Gilia capitata ssp. pacifica*	PDPLM040B6			G5T3T4	S2.2?	1B/2-2-2
10	Upland Douglas Fir Forest	CTT82420CA			G4	S3.1	
11	Whitney's farewell-to-spring *Clarkia amoena ssp. whitneyi*	PDONA05025			G5T2	S2.1	1B/3-3-3
12	coast fawn lily *Erythronium revolutum*	PMLIL0U0F0			G4	S2.2	2/2-2-1
13	golden eagle *Aquila chrysaetos*	ABNKC22010			G5	S3	SC
14	leafy-stemmed mitrewort *Mitella caulescens*	PDSAX0N020			G5	S2.3	2/2-1-1
15	long-beard lichen *Usnea longissima*	NLLEC5P420			G4	S3.1	
16	maple-leaved checkerbloom *Sidalcea malachroides*	PDMAL110E0			G2	S3.2	1B/2-2-2
17	marsh pea *Lathyrus palustris*	PDFAB250P0			G5	S2S3	2/2-2-1
18	northern spotted owl *Strix occidentalis caurina*	ABNSB12011	Threatened		G3T3	S2S3	
19	osprey *Pandion haliaetus*	ABNKC01010			G5	S3	SC
20	red tree vole *Arborimus pomo*	AMAFF10030			G3	S3	SC
21	robust monardella *Monardella villosa ssp. globosa*	PDLAM180P7			G5T2	S2.2	1B/2-2-3
22	southern torrent salamander *Rhyacotriton variegatus*	AAAAJ01020			G3G4	S2S3	SC

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name
Possible Species within the Briceland and Surrounding Quads for:
Upper Mattole Coho Recovery Project
T4S, R2E, Section 33 and T5S, R2E, Section 00
Humboldt County

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
23	summer-run steelhead trout *Oncorhynchus mykiss irideus*	AFCHA02092			G5T2	S2	SC
24	western tailed frog *Ascaphus truei*	AAABA01010			G4	S2S3	SC
25	willow flycatcher *Empidonax traillii*	ABPAE33040		Endangered	G5	S1S2	

EXHIBIT A
Bear Creek Road Upgrades
Statement of Work

Under direction of the Department of Fish and Game, and under the following conditions and terms, the Grantee will:

1. Improve spawning and rearing habitat by reducing road related sediment delivery for coho salmon, Chinook salmon and steelhead trout in selected sections of Bear Creek and South Fork Bear Creek, tributaries to Mattole River in Humboldt County. The objective is to save 4,950 cubic yards of sediment from delivery by dispersing road runoff on 3.5 miles of road.

2. Work will take place in the Mattole River watershed. The project is located in Township 5S, Range 2E and Township 4S, Range 1E of the Briceland and Honeydew 7.5 Minute U.S.G.S. Quadrangles, as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.

3. The Grantee will upgrade 3.5 miles of road thereby saving 4,950 cubic yards of sediment from delivery to Bear and South Fork Bear creeks. The Grantee shall upgrade approximately 17 stream crossings and improve drainage at five sites by installing ditch relief culverts or constructing rolling dips. The following treatments will be implemented where appropriate:
   - Upgrading stream crossings installing culverts sized for the 100-year flood flow, including sufficient capacity for expected wood and sediment; eliminate diversion potential by installing a critical dip; replacing culverted fills with hardened fords or armored fills, etc;
   - Excavation of unstable fill slopes;
   - Dispersion of road runoff and disconnecting road surface runoff from streams, including but not limited to, berm removal, road surface shaping (outsloping, crowning) and installation of ditch relief culverts and/or rolling dips.
   - Seed and mulch all exposed soils which may deliver sediment to a stream. The standard for success is 80% ground cover for broadcast planting of seed, after a period of three years.

4. All stream crossings will meet flow carrying capacity required for a 100 year flood event as identified by specifications determined by NOAA Fisheries and the California Department of Fish and Game.

5. All crossing upgrades in fish bearing reaches of streams will follow the National Marine Fisheries Service (NMFS 2001) Guidelines for Salmonid Passage at Stream Crossings and DFG criteria for adult and juvenile salmonid fish passage as described in the Third Edition, Volume II, Part IX, February 2003, of the *California Salmonid Stream Habitat Restoration Manual*. Culvert replacement or modification designs shall be visually reviewed and authorized by NOAA Fisheries (or CDFG) engineers prior to commencement of work.

6. The landowner or land manager must maintain road upgrading projects for at least 10 years.

7. Sites which are expected to erode and deliver sediment to the stream are the only locations where work will be authorized for reimbursement under the terms of this agreement. Reimbursement will not be authorized for work done to improve aesthetics only.

8. The Grantee shall notify the Grant Manager a minimum of five working days before any fish bearing stream reaches are dewatered and the stream flow diverted. The notification will provide a reasonable time for Department personnel to supervise the implementation of the water diversion plan and oversee the safe removal and relocation of salmonids and other fish life from the project area. If the project requires dewatering of the site, and the relocation of salmonids, the Grantee will implement the following measures to minimize harm and mortality to listed salmonids:
   - Fish relocation and dewatering activities shall only occur between June 15 and November 1 of each year.
   - The Grantee shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible.
   - All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service, *Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act*, June 2000.
   - The Grantee will provide fish relocation data to the Grant Manager on a form provided by the Department of Fish and Game.
   - Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX 52 and IX 53 of the *California Salmonid Stream Habitat Restoration Manual.*

9. All road upgrading will be done in accordance with techniques described in the *Handbook for Forest and Ranch Roads,* (PWA, 1994c.) and the *California Salmonid Stream Restoration Manual*, Third Edition, Volume II, Part X, January 2004. All road decommissioning and upgrade sites and techniques shall be approved by the Grant Manager before any equipment work takes place.

10. Work in flowing streams is restricted to June 15 through November 1. Actual project start and end dates, within this timeframe, are at the discretion of the Department of Fish and Game.

11. Upon completion of the project, the Grantee shall submit two hard copies of a final written report and one electronic, *Microsoft Word* compatible, copy on 3.5 inch floppy disk(s) or CD. If the project is not completed in that calendar year, the Grantee will submit a summary of the portion of the project completed during that year by no later than December 31. The report shall include, but not necessarily be limited to the following information:
   - grant number

- project name
- geographic area (e.g., watershed name)
- location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map
- geospatial reference/location (lat/long is preferred – defined as point, line, or polygon)
- project start and end dates and the number of person hours expended
- total of each fund source expended to complete the project, breaking down Grant dollars and any other funding, including type of match (cash or in-kind service)
- expected benefits to anadromous salmonids from the project
- labeled before and after photographs of any restoration activities and techniques
- specific project access using public and private roads and trails, with landowner name and address
- complete as built project description
- report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (HU) (Report N/A to those that do not apply)

Habitat Projects: (all)

- Identify the watershed/sub-basin plan or assessment in which the project is identified as a priority.
- Name the priority habitat limiting factors identified in that plan that are addressed by the project
- Type of monitoring included in the project
  - Design spec achieved
  - Fish movement/abundance
- Number of stream miles treated/affected by the project within the project boundaries.

Upland Habitat Projects (HU)

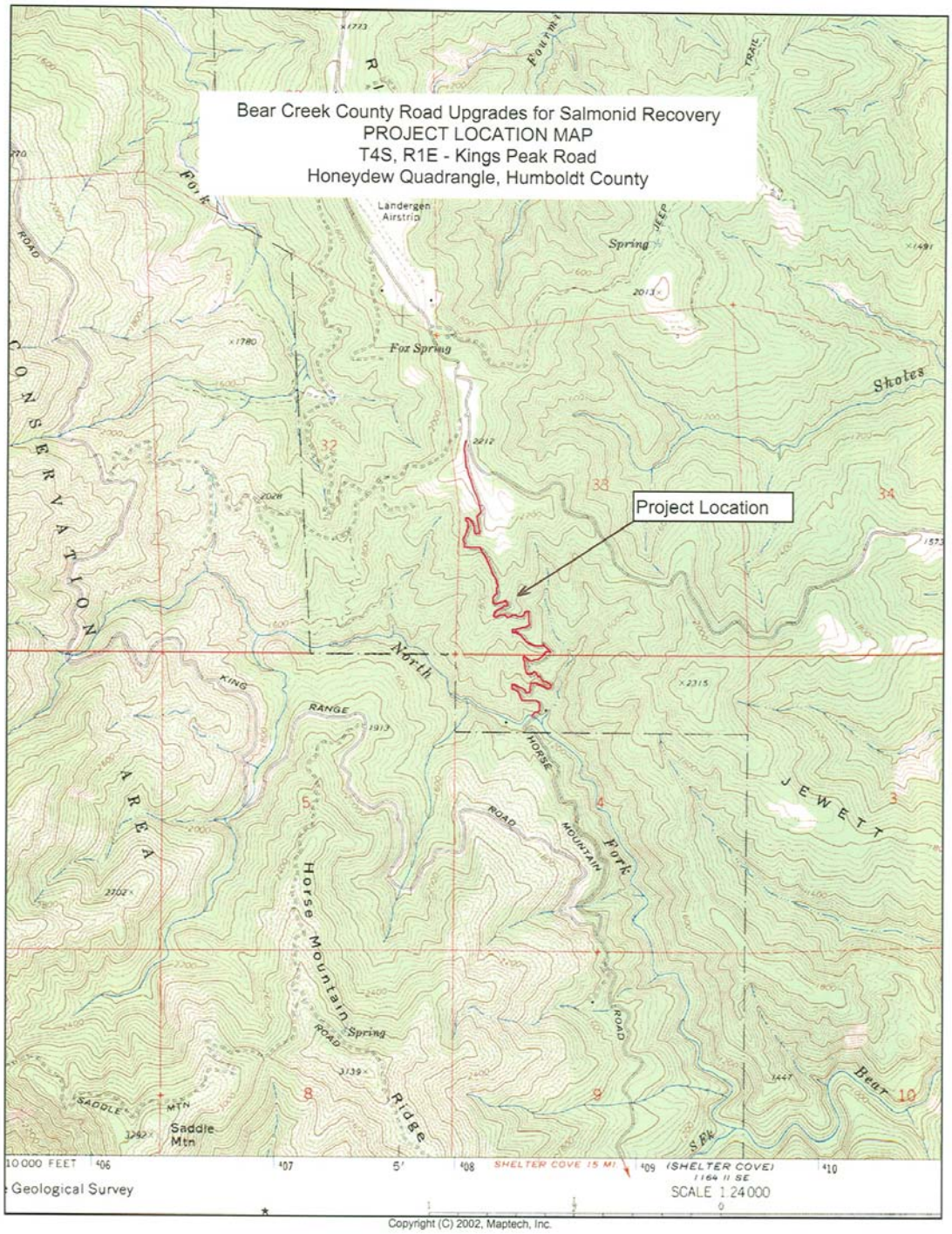
- Number of actions (road decommission / upgrade)
- Number of acres treated.
- Number of miles of road decommissioned or upgraded (e.g., treated).
- Number of cubic yards of sediment saved from entering the steam.

Water Quality Projects

- Water quality limitations addressed by the project (e.g. 303(d), TMDL)

12. The Grantee will acknowledge the participation of the Department of Fish and Game, Fisheries Restoration Grant funds on any signs, flyers, or other types of written communication or notice to advertise or explain the Bear Creek Road Upgrades Project.

Exhibit 2: CEQA Documentation



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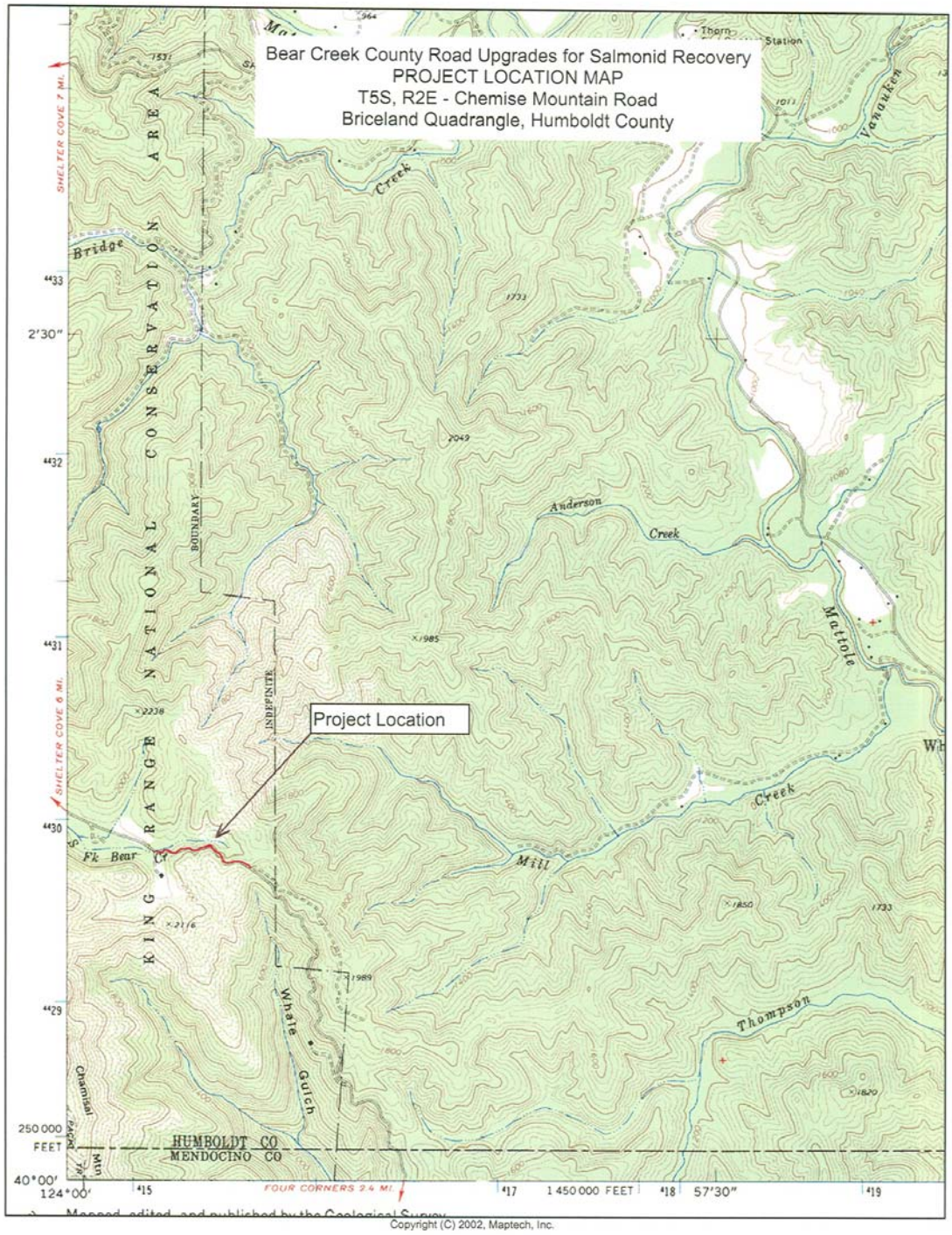

Exhibit 2: CEQA Documentation

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name
Possible Species within the Honeydew, Briceland and Surrounding Quads for:
Bear Creek County Road Upgrades for Salmonid Recovery
T5S, R2E, unsectioned and T4S, R1E, unsectioned
Humboldt County

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
1	Coho salmon - central California esu *Oncorhynchus kisutch*	AFCHA02030	Threatened	Endangered	G4	S2?	
2	Cooper's hawk *Accipiter cooperii*	ABNKC12040			G5	S3	SC
3	Howell's montia *Montia howellii*	PDPOR05070			G3G4	S1.2	2/3-2-1
4	Humboldt marten *Martes americana humboldtensis*	AMAJF01012			G5T2T3	S2S3	SC
5	Mendocino coast Indian paintbrush *Castilleja mendocinensis*	PDSCR0D3N0			G2	S2.2	1B/2-2-2
6	Oregon coast Indian paintbrush *Castilleja affinis ssp. litoralis*	PDSCR0D1V0			G4G5T4	S2.2	2/2-2-1
7	Pacific gilia *Gilia capitata ssp. pacifica*	PDPLM040B6			G5T3T4	S2.2?	1B/2-2-2
8	Upland Douglas Fir Forest	CTT82420CA			G4	S3.1	
9	Whitney's farewell-to-spring *Clarkia amoena ssp. whitneyi*	PDONA05025			G5T2	S2.1	1B/3-3-3
10	coast fawn lily *Erythronium revolutum*	PMLIL0U0F0			G4	S2.2	2/2-2-1
11	foothill yellow-legged frog *Rana boylii*	AAABH01050			G3	S2S3	SC
12	golden eagle *Aquila chrysaetos*	ABNKC22010			G5	S3	SC
13	leafy-stemmed mitrewort *Mitella caulescens*	PDSAX0N020			G5	S2.3	2/2-1-1
14	long-beard lichen *Usnea longissima*	NLLEC5P420			G4	S3.1	
15	maple-leaved checkerbloom *Sidalcea malachroides*	PDMAL110E0			G2	S3.2	1B/2-2-2
16	marsh pea *Lathyrus palustris*	PDFAB250P0			G5	S2S3	2/2-2-1
17	northern spotted owl *Strix occidentalis caurina*	ABNSB12011	Threatened		G3T3	S2S3	
18	osprey *Pandion haliaetus*	ABNKC01010			G5	S3	SC
19	red tree vole *Arborimus pomo*	AMAFF10030			G3	S3	SC
20	robust monardella *Monardella villosa ssp. globosa*	PDLAM180P7			G5T2	S2.2	1B/2-2-3
21	running-pine *Lycopodium clavatum*	PPLYC01080			G5	S2S3	2/2-1-1
22	southern torrent salamander *Rhyacotriton variegatus*	AAAAJ01020			G3G4	S2S3	SC

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name
Possible Species within the Honeydew, Briceland and Surrounding Quads for:
Bear Creek County Road Upgrades for Salmonid Recovery
T5S, R2E, unsectioned and T4S, R1E, unsectioned
Humboldt County

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
23	summer-run steelhead trout *Oncorhynchus mykiss irideus*	AFCHA02092			G5T2	S2	SC
24	western tailed frog *Ascaphus truei*	AAABA01010			G4	S2S3	SC